32-5811-018-14+P

TM 32-5811-018-14&P

TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL,
DIRECT SUPPORT AND GENERAL SUPPORT
(INTERMEDIATE SUPPORT) MAINTENANCE MANUAL
AND REPAIR PARTS AND SPECIAL TOOLS LIST
(INCLUDING DEPOT MAINTENANCE REPAIR
PARTS AND SPECIAL TOOLS)

POWER SUPPLY PP-7292/USQ
POWER SUPPLY PP-7292A/USQ
POWER SUPPLY PP-7293/USQ
POWER SUPPLY PP-7293A/USQ
POWER SUPPLY PP-7294/USQ
POWER SUPPLY PP-7294A/USQ
POWER SUPPLY TEST SET AN/USM-435

TRACOR AEROSPACE, INC.
DAAK 21-84-C-0099

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HEADQUARTERS, DEPARTMENT OF THE ARMY
MAY 1989

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WARNING

High voltage is used in the operation of this equipment. Avoid contacting high-voltage connections when installing or operating this equipment. Injury or death may result if personnel fail to observe safety precautions.

Adequate ventilation should be provided while using trichlorotrifluoroethane. Proglonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since trichlorotrifluoroethane dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use heavy duty rubber gloves that the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.

Before performing any inspection procedure, ensure that power is disconnected from the power supply.

Technical Manual

NO. 32-5811-018-14&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 15 MAY 1989

OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT [INTERMEDIATE SUPPORT] MAINTENANCE MANUAL AND REPAIR PARTS AND SPECIAL TOOLS LIST [INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS] FOR POWER SUPPLIES PP-7292/USQ, PP-7292A/USQ, PP7294/USQ, PP-7294, PP-7293, PP-7293A AND POWER SUPPLY TEST SET AN/USM-435

REPORTING OF ERRORS

You can improve this manual by recommending improvements using DA Form 2028-2 located in the back of the manual. Simply tear out the self-addressed form, fill it out as shown on the sample, fold it where shown, and drop it in the mail.

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In either case, a reply will be furnished directly to you.

TABLE OF CONTENTS

			Paragraph	Page
CHAPTER	1.	INTRODUCTION		
SECTION	I.	General		
		Scope	1-1	1-1
		Maintenance Forms and Records	1-2	1-1
		Destruction of Army Materiel to Prevent Enemy Use	1-3	1-1
		Administrative Storage	1-4	1-1
		Reporting Equipment Improvement Recommendations (EIR)	1-5	1-3
SECTION	II.	Description and Data		
		Purpose and Use	1-6	1-3
		Description	1-7	1-4
		Difference Between Models	1-8	1-5
		Tabulated Data	1-9	1-14

TABLE OF CONTENTS - Continued

			Paragraph	Page
CHAPTER	2.	SERVICE UPON RECEIPT AND INSTALLATION		
Section	I.	Service Upon Receipt of Material		
		Unpacking	2-1	2-1
		Checking Unpacked Equipment	2-2	2-1
	II.	Installation Instructions		
		Tools, Test Equipment, and Materials Required for Installation	2-3	2-1
		Installation Instructions	2-4	2-1
		Interconnections	2-5	2-2
CHAPTER	3.	OPERATING INSTRUCTIONS		
Section	I.	Controls and Indicators		
		General	3-1	3-1
		Operator Controls and Indicators	3-2	3-1
	II.	Operation Under Usual Conditions		
		General	3-3	3-3
		Operating Procedures	3-4	3-3
CHAPTER	4.	ORGANIZATIONAL MAINTENANCE INSTRUCTIONS		
Section	I.	General		
		Scope	4-1	4-1
	II.	Tools and Equipment		
		General	4-2	4-1
		Tools and Equipment Required	4-3	4-1
	III.	Preventive Maintenance Checks and Services		
		General	4-4	4-1
		Daily and Weekly Preventive Maintenance	4-5	4-2
		Monthly Preventive Maintenance	4-6	4-3
	IV.	Troubleshooting		
		Troubleshooting	4-7	4-4
	V.	Maintenance		
		General	4-8	4-4
CHAPTER	5.	FUNCTIONING OF EQUIPMENT		
Section	I.	General		
		Scope	5-1	5-1
		Organization	5-2	5-1
	II.	Functional Description		
		General	5-3	5-1
	III.	Detailed Theory of Operation		
		General	5-4	5-2
		DC-DC Converter Power Modules	5-5	5-2
		Overvoltage Protectors	5-6	5-2
		Blower, Elapsed Time Meter, and AC Interlock	5-7	5-3
		Thermal Switch	5-8	5-3
CHAPTER	6.	INTERMEDIATE SUPPORT MAINTENANCE INSTRUCTIONS		
Section	I.	General Requirements		
		Scope	6-1	6-1

TABLE OF CONTENTS - Continued

			Paragraph	Page
	II.	Tools and Equipment		
		General	6-2	6-1
		Tools and Equipment Required	6-3	6-1
	III.	Troubleshooting		
		General	6-4	6-1
		Troubleshooting Procedures	6-5	6-2
	IV.	Maintenance of the Power Supplies and Power Supply Test Set		
		General	6-6	6-7
		Maintenance Procedures	6-7	6-7
		Disassembly/Assembly Procedures	6-8	6-8
	V.	Intermediate Support Test Procedures		
		General	6-9	6-20
		Test Procedures	6-10	6-21
	VI.	Adjustment Procedures		
		General	6-11	6-21
		Adjustment Procedures	6-12	6-21
CHAPTER	7.	INTERCONNECT WIRE LIST		7-1
APPENDIX	A.	REFERENCES		A-1
	B.	MAINTENANCE ALLOCATION CHART		B-1
	C.	REPAIR PARTS AND SPECIAL TOOLS LIST		C-1
	D.	EXPENDABLE SUPPLIES AND MATERIAL LIST		D-1
INDEX				Index-1

LIST OF ILLUSTRATIONS

Figure	Title	Page
1-1	Power Supplies PP-7292/USQ, PP-7293/USQ, and PP-7294/USQ	1-2
1-2	Power Supply Test Set AN/USM-435	1-3
1-3	Typical Power Supply Applications	1-5
3-1	Power Supply Test Set Controls, Indicators, and Connectors	3-1
6-1	Power Supply PP-7293A/USQ Component Locations	6-9
6-2	Power Supply Test Setup	6-22
6-3	OVP Test Setup	6-25
FO-1	Power Supply PP-7292/USQ Wiring Diagram	
FO-2	Power Supply PP-7293/USQ Wiring Diagram	
FO-3	Power Supply PP-7294/USQ Wiring Diagram	
F0-4	Power Supply Test Set AN/USM-435 Wiring Diagram	

LIST OF TABLES

Table	Title	Page
1-1	Output Voltages	1-4
1-2	PP-7292/USQ Input/Output Connections	1-6
1-3	PP-7293/USQ Input/Output Connections	1-7
1-4	PP-7294/USQ Input/Output Connections	1-10
1-5	AN/USM-435 Input/Output Connections	1-11
1-6	DC Input Current and Power	1-14
1-7	Mating Connector Types	1-17
3-1	Power Supply Test Set Controls, Indicators, and Connectors	3-2
4-1	Daily Preventive Maintenance Checks and Services	4-2
4-2	Weekly Preventive Maintenance Checks and Services	4-3
4-3	Monthly Preventive Maintenance Checks and Services	4-3
6-1	Power Supply Trouble Sectionalization Chart	6-3
6-2	Power Supply Data	6-23

WARNING

High voltage is used in the operation of this equipment. Avoid contacting high-voltage connections when installing or operating this equipment. Injury or death may result if personnel fail to observe safety precautions. (page 6-1)

Adequate ventilation should be provided while using trichlorotrifluoroethane. Proglonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since trichlorotrifluoroethane dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use heavy duty rubber gloves that the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately. (page 4-2, 6-8, 6-20)

Before performing any inspection procedure, ensure that power is disconnected from the power supply. (page 6-7)

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope.

This manual provides organizational and intermediate support maintenance information for Power Supplies PP-7292/USQ, PP-7293/USQ, and PP-7294/USQ, PP-7292A/USQ, PP-7293A/USQ, PP-7294A/USQ, and Power Supply Test Set AN/USM-435, hereinafter referred to as the power supplies (see figure 1-1) and the power supply test set (see figure 1-2), respectively. In addition, the manual provides general descriptions and data, operating instructions, and theory of operation.

1-2. Maintenance Forms and Records.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed in DA PAM 738-750, The Army Maintenance Management System (TAMMS).

1-3. Destruction of Army Materiel to Prevent Enemy Use.

Procedures for the destruction of Army materiel are contained in TM 750-244-2, Procedures for Destruction of Electronics Materiel To Prevent Enemy Use (Electronics Command).

1-4. Administrative Storage.

Refer to TM 740-90-1, Administrative Storage of Equipment, for test procedures, forms and records, and inspections required during administrative storage of this equipment.

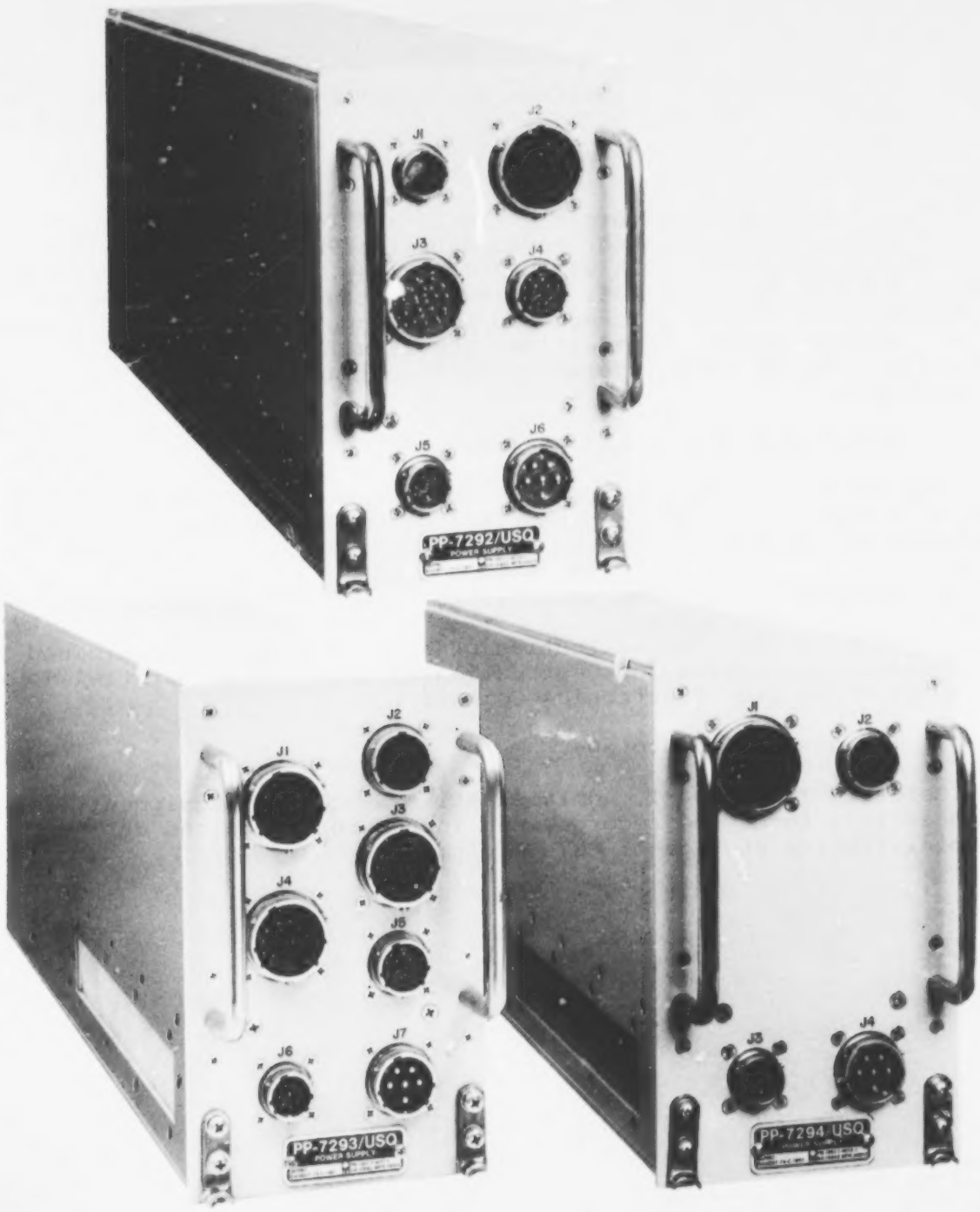


Figure 1-1. Power Supplies PP-7292/USQ, PP-7293-USQ, and PP-7294/USQ

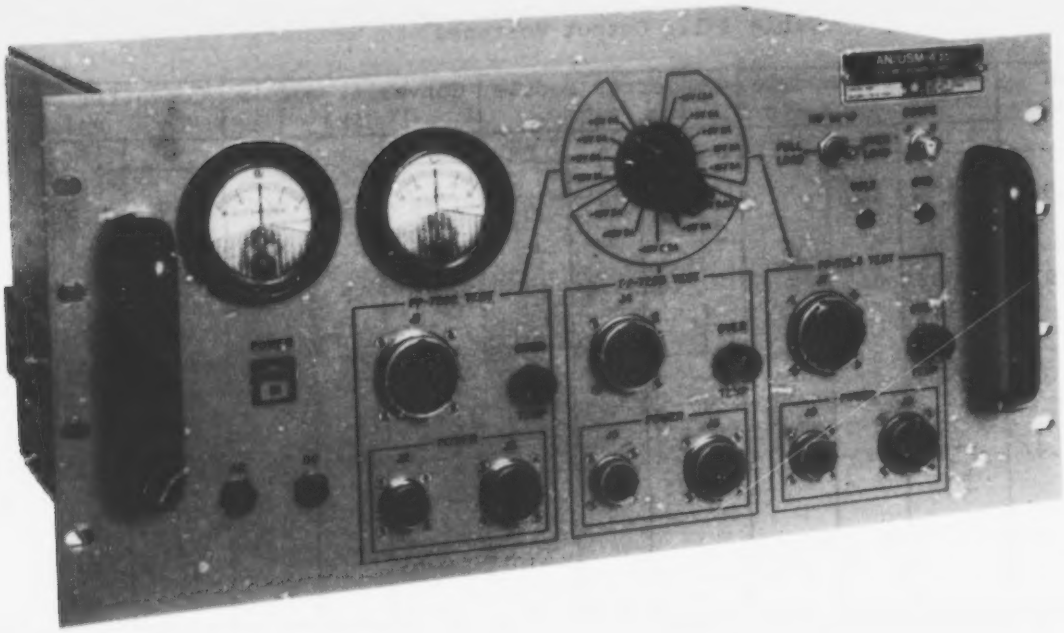


Figure 1-2. Power Supply Test Set AN/USM-435

1-5. Reporting Equipment Improvement Recommendations (EIR).

EIRs will be submitted on SF 368 (Quality Deficiency Report) in accordance with DA PAM 738-750 (TAMMS). EIRs should be mailed directly to the Commander, U.S. Army Electronic Materiel Readiness Activity, Vint Hill Farms Station, Warrenton, Virginia 22186, Attn: SELEM-ME-I. A reply will be furnished directly to you.

Section II. DESCRIPTION AND DATA

1-6. Purpose and Use.

The power supplies convert primary 28 V dc power to the regulated voltages required for each unit as listed in table 1-1. In a typical application, the power supplies provide power for the equipment listed in figure 1-3. The power supply test set is used to test the power supplies.

Table 1-1. Output Voltages

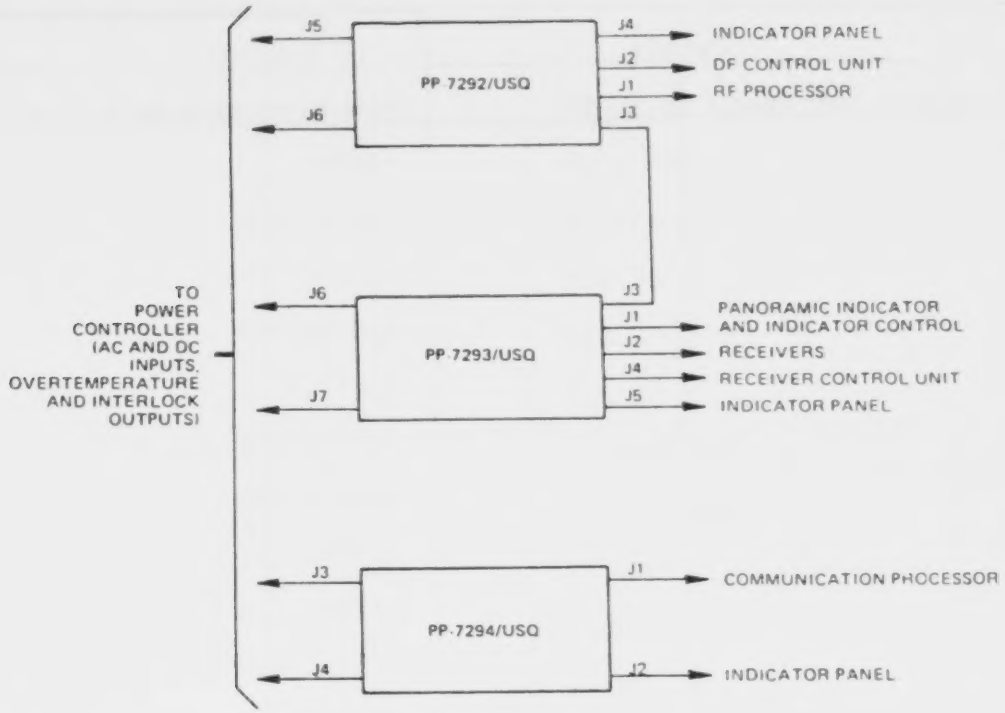
Power supply unit	Converter module PS1			Converter module PS2			Converter module PS3			Converter module PS4		
	V	I	RS	V	I	RS	V	I	RS	V	I	RS
PP-7292/USQ	±15 ±.75	1.1		±5 ±.25	9	X	±5 ±.25	9	X	±5 ±.25	9	
PP-7293/USQ	±36 ±1.8	0.5		±10 ±.5	6.8		±5 ±.25	9		±15 ±.75 ±15 ±.75	3.2 ea	
PP-7294/USQ	±10 ±.5	1.6	X	±5 ±.25	9	X	±5 ±.25	9	X	±15 ±.75 ±15 ±.75	3.2 ea	X

Notes: I = amperes maximum.
Voltages screwdriver-adjustable about nominal values listed.
X in RS column indicates remote sense features used.

1-7. Description.

a. Power Supplies. Each power supply consists of four hermetically sealed power supplies (dc-dc converter power modules) mounted on a heavy-duty heat sink enclosed in a standard case. Overvoltage protectors, a thermal switch, a running time meter, and a cooling blower are also included. The running time meter and the blower operate from an external ac source. All input/output connectors are quick-disconnect types mounted on the front panel of the unit. See table 1-2 for PP-7292/USQ input/output connections. See table 1-3 for PP-7293/USQ input/output connections. See table 1-4 for PP-7294/USQ input/output connections. The running time meter and the blower with intake filter are mounted on the rear panel. RFI-type air exhaust ports are on the side panels toward the front.

b. Power Supply Test Set. The power supply test set is used to test power supplies. Its circuitry is passive except for three relays and two meters. Tests are performed by connecting test cables from the power supply test set to the power supply under test. See table 1-5 for power supply test set input/output connections.



NOTE: SEE FIGURES FO-1 THRU FO-3 FOR SPECIFIC CONNECTOR PIN DESIGNATIONS

Figure 1-3. Typical Power Supply Application

1-8. Differences Between Models.

The PP-7292, PP-7293, PP-7294 and PP-7292A, PP-7293A and PP-7294A model power supplies are interchangeable. Differences between the power supplies are limited to the types and ratings of installed dc-dc converter power modules and corresponding overvoltage protectors, and to the front-panel connector types and pin configurations.

Each of the power supply units comes in two models that are distinguished by the part number and the name plate. The major difference between the models is the type of wiring harness used. Other differences are detailed in the parts list.

Table 1-2. PP-7292/USQ Input/Output Connections

Origin		
Connector ref des	Pin	Function/remarks
J1	A	+5VDC
	B	+5VDC RTN
	C	+15VDC
	D	+15VDC RTN
	E	-15VDC
	F	-15VDC RTN
J1	K	SHIELD GND
J2	A	+15VDC
	B	-15VDC
	C	±15VDC RTN
	F	+5VDC
	G	+5VDC
	H	+5VDC RTN
	J	+5VDC RTN
	K	+5VDC SENSE
	L	+5VDC
	M	+5VDC
	N	+5VDC RTN
	P	+5VDC RTN
	R	+5VDC SENSE
	S	-10VDC
	T	-10VDC RTN
J2	V	+5VDC

Table 1-2. PP-7292/USQ Input/Output Connections - Continued

Origin		
Connector ref des	Pin	Function/remarks
J2	W	+5VDC RTN
J2	X	SHIELD GND
J3	G	-10VDC
	H	-10VDC RTN
	N	-15VDC
	P	-15VDC RTN
J3	S	SHIELD GND
J4	G	+15VDC
	H	+15VDC RTN
	J	+5VDC NO. 1
	K	+5VDC RTN
	L	+5VDC NO. 2
	M	+5VDC RTN
	N	+5VDC NO. 3
	P	+5VDC RTN
J4	R	SHIELD GND
J5	A	115VAC, Ø1, 400 CPS
	B	115VAC, Ø2, 400 CPS
	C	115VAC, Ø3, 400 CPS
	D	NEUTRAL INTLK
	E	NEUTRAL INTLK
J5	H	SHIELD GND
J6	B	+28VDC IN
J6	C	OVER TEMP

Table 1-2. PP-7292/USQ Input/Output Connections - Continued

Origin		
Connector ref des	Pin	Function/remarks
J6	D	GND
↕	E	GND
J6	F	SHIELD GND

Table 1-3. PP-7293/USQ Input/Output Connections

Origin		
Connector ref des	Pin	Function/remarks
J1	E	-10VDC
↕	F	-10VDC RTN
↕	G	+5VDC
↕	H	+5VDC RTN
↕	J	+15VDC
↕	K	+15VDC RTN
↕	L	-15VDC
↕	M	-15VDC RTN
↕	N	+36VDC
↕	P	+36VDC RTN
J1	S	SHIELD GND
J2	J	+15VDC
↕	K	-15VDC
↕	L	+5VDC
J2	M	+5VDC

Table 1-3. PP-7293/USQ Input/Output Connections - Continued

Origin		
Connector ref des	Pin	Function/remarks
J2	N	+15VDC
	P	+36VDC
	R	GND
	S	GND
	U	+15VDC
	V	-15VDC
	W	+5VDC
	X	+5VDC
	Y	+5VDC
	Z	+36VDC
	a	GND
	b	GND
J2	c	SHIELD GND
J3	G	-10VDC
	H	-10VDC RTN
	N	-15VDC
	P	-15VDC RTN
J3	S	SHIELD GND
J4	H	+5VDC
	J	+5VDC RTN
	K	+15VDC
	L	+15VDC RTN
	M	-10VDC
J4	N	-10VDC RTN

Table 1-3. PP-7293/USQ Input/Output Connections - Continued

Origin		
Connector ref des	Pin	Function/remarks
J4	P	+28VDC
↓	R	+28VDC RTN
J4	S	SHIELD GND
J5	F	+5VDC
↓	G	+5VDC RTN
↓	H	-10VDC
↓	J	-10VDC RTN
↓	K	+36VDC
↓	L	+36VDC RTN
↓	M	+15VDC
↓	N	+15VDC RTN
↓	P	-15VDC
J5	R	SHIELD GND
J6	A	115VAC, Ø1, 400 CPS
↓	B	115VAC, Ø2, 400 CPS
↓	C	115VAC, Ø3, 400 CPS
↓	D	NEUTRAL INTLK
↓	E	NEUTRAL INTLK
J6	H	SHIELD GND
J7	B	28VDC
↓	C	OVER TEMP
↓	D	GND
↓	E	GND
J7	F	SHIELD GND

Table 1-4. PP-7294/USQ Input/Output Connections

Origin		
Connector ref des	Pin	Function/remarks
J1	A	+15VDC
	B	-15VDC
	C	±15VDC RTN
	D	+15VDC SENSE
	E	-15VDC SENSE
	F	+5VDC
	G	+5VDC
	H	+5VDC RTN
	J	+5VDC RTN
	K	+5VDC SENSE
	L	+5VDC
	M	+5VDC
	N	+5VDC RTN
	P	+5VDC RTN
	R	+5VDC SENSE
	S	-10VDC
	T	-10VDC RTN
	U	-10VDC SENSE
J1	X	SHIELD GND
J2	F	-10VDC
	G	-10VDC RTN
	H	+5VDC NO. 1
	J	+5VDC RTN

Table 1-4. PP-7294/USQ Input/Output Connections - Continued

Origin		
Connector ref des	Pin	Function/remarks
J2	K	+5VDC NO. 2
↓	L	+5VDC RTN
↓	M	+15VDC
↓	N	±15VDC RTN
↓	P	-15VDC
J2	R	SHIELD GND
J3	A	115VAC, Ø1, 400 CPS
↓	B	115VAC, Ø2, 400 CPS
↓	C	115VAC, Ø3, 400 CPS
↓	D	NEUTRAL INTLK
↓	E	NEUTRAL INTLK
J3	H	SHIELD GND
J4	B	+28VDC IN
↓	C	OVER TEMP
↓	D	GND
↓	E	GND
J4	F	SHIELD GND

Table 1-5. AN/USM-435 Input/Output Connections

Origin		
Connector ref des	Pin	Function/remarks
J1	A	P.S. #1, PM #1, +15V, 1A
	B	SPARE
	C	PM #1 RTN
	D	SPARE
	E	SPARE
	F	PM #2, +5V, 9A
	G	PM #2, +5V, 9A
	H	PM #2 RTN
	J	PM #2 RTN
	K	PM #2, +5V, SENSE
	L	PM #3, +5V, 9A
	M	PM #3, +5V, 9A
	N	PM #3 RTN
	P	PM #3 RTN
	R	PM #3, +5V, SENSE
	S	SPARE
	T	SPARE
	U	SPARE
	V	PM #4, +5V, 9A
	W	PM #4 RTN
J1	X	SHIELD GND
J2	A	115VAC, Ø1, 400HZ
	B	115VAC, Ø2, 400HZ
J2	C	115VAC, Ø3, 400HZ

Table 1-5. AN/USM-435 Input/Output Connections - Continued

Origin		
Connector ref des	Pin	Function/remarks
J2	D	NEUTRAL
	E	NEUTRAL INTERLOCK
	F	SPARE
	G	SPARE
J2	H	SHIELD GND
J3	A	SPARE
	B	+28VDC
	C	OVER TEMP
	D	GND
	E	GND
J3	F	SHIELD GND
J4	A	SPARE
	B	SPARE
	C	SPARE
	D	SPARE
	E	PM #2, -10V
	F	PM #2 RTN (GND)
	G	PM #3, +5V, 9A
	H	PM #3 RTN (GND)
	J	PM #4, +15V
	K	RTN (GND) PM #4 RTN (GND)
	L	PM #4, -15V
	M	PM #4 RTN (GND)
J4	N	PM #1, +36V, 0.5A

Table 1-5. AN/USM-435 Input/Output Connections - Continued

Origin		
Connector ref des	Pin	Function/remarks
J4	P	PM #1 RTN (GND)
↓	R	SPARE
J4	S	SHIELD GND
J5	A	115VAC, Ø1, 400 HZ
↓	B	115VAC, Ø2, 400 HZ
	C	115VAC, Ø3, 400 HZ
	D	NEUTRAL
	E	INTERLOCK
	F	SPARE
	G	SPARE
J5	H	SHIELD GND
J6	A	SPARE
↓	B	+28VDC
	C	OVERTEMP
	D	GND
	E	GND
J6	F	SHIELD GND
J7	A	PM #4, +15V, 3A
↓	B	PM #4, -15V, 3A
	C	815V RTN PM #4 (GND)
	D	PM #4, +15V SENSE
	E	PM #4, -15V SENSE
J7	F	PM #3, +5V, 9A

Table 1-5. AN/USM-435 Input/Output Connections - Continued

Origin		
Connector ref des	Pin	Function/remarks
J7	G	PM #3, +5V, 9A
	H	PM #3, +5V RTN, (GND)
	J	PM #3, +5V RTN, (GND)
	K	PM #3, +5V SENSE
	L	PM #2, +5V, 9A
	M	PM #2, +5V, 9A
	N	PM #2 +5V RTN (GND)
	P	PM #2 +5V RTN (GND)
	R	PM #2 +5V SENSE
	S	PM #1, -10V, 1.5A
	T	PM #1, -10V, RTN (GND)
	U	PM #1, -10V SENSE
	V	SPARE
	W	SPARE
J7	X	SHIELD GND
J8	A	115VAC, Ø1, 400HZ
	B	115VAC, Ø2, 400HZ
	C	115VAC, Ø3, 400HZ
	D	NEUTRAL
	E	INTERLOCK
	F	SPARE
	G	SPARE
J8	H	SHIELD GND
J9	A	SPARE

Table 1-5. AN/USM-435 Input/Output Connections - Continued

Origin		Function/remarks
Connector ref des	Pin	
J9	D	GND
↕	E	GND
J9	F	SH. GND

Table 1-6. DC Input Current and Power

	PP-7292/USQ		PP-7293/USQ		PP-7294/USQ		Totals	
	Full load	Half load	Full load	Half load	Full load	Half load	Full load	Half load
Current, amperes	16.4	9.9	18.6	10.7	18.4	10.7	53.3	31.3
I x 28 V = watts	459	277	520	299	514	299	1493	876

Note: I = amperes maximum.

1-9. Tabulated Data.

Output voltages. . . . . See table 1-1.

Input power. . . . . 24 to 32 V dc
3 ϕ, 115 V ac ±11.5 V at
400 Hz ±57 Hz, see table 1-6.

Line regulation. . . . . 0.1% (0.2% for ±15-V dual modules) or 10 mV, whichever is greater, for input change of 24 to 30 V dc with load constant.

Load regulation. . . . . 0.1% (0.2% for ±15-V dual modules) or 20 mV, whichever is greater, for load change of no load to full load with line constant.

Ripple . . . . . 50 mV rms.

Tracking accuracy (±15-V dual modules only). . .	The negative output tracks positive output to within 150 mV for all rated conditions of input voltage, output current, operating temperature, and output voltage temperature.
Output voltage adjustment. . .	The voltage of each converter module is screwdriver-adjustable for the small nominal value ranges listed in table 1-1.
Temperature coefficient. . . .	0.015%/°C from -20° to +80° C baseplate temperature; 0.3%/°C maximum over maximum baseplate temperature range of -55 to +100° C (at center of module mounting base).
Short circuit protection . . .	Each converter module is protected against an overload or short circuit for any duration. The output voltage automatically is restored to normal when the overload is removed.
Input transient protection . .	The converter modules are protected in accordance with MIL-STD-704A, figure 9, limit 1 (80 V dc for 0.1 s).
Overvoltage protection	All dc outputs are overvoltage-protected. Crowbar response time is 15 µs maximum. Trip-point settings are screwdriver-adjustable.
Remote error sensing	The remote sensing feature is used for the outputs indicated in table 1-1 and compensates for the line voltage drop between supply and load.
Load transient recovery time	The output voltage returns to regulation limits within 100 µs after a 50% step change in load current.

Turn-on/turn-off overshoot . .	An output voltage overshoot during turn-on or turn-off will not exceed 0.1% (0.2% for ±15-V dual modules) of the output voltage or 20 mV (30 mV for ±15-V dual modules), whichever is greater.
Electromagnetic interference	Meets the requirements of MIL-STD-461 for generation of and susceptibility to radiated and conducted interference.
Cooling.	Forced air (blower).
Over-temperature protection. .	The thermal switch activates the warning light on the system indicator panel.
Reliability:	
PP-7292/USQ.	Predicted MTBF > 2970 hours
PP-7293/USQ.	Predicted MTBF > 2700 hours
PP-7294/USQ.	Predicted MTBF > 2700 hours
Environmental specifications:	
Operating temperature. . . .	-40° to +55° C (-40° to +133° F)
Altitude	70,000 feet
Humidity	0% to 95%
Physical characteristics of each power supply unit:	
Height	7.80 inches (19.8 cm)
Width.	4.95 inches (12.6 cm)
Depth.	20 inches (50.8 cm)
Weight	23.4 pounds (10.64 kg)
Mating connector types	See table 1-7.

Table 1-17. Mating Connector Types

Connector	PP-7292A/USQ	PP-7293A/USQ	PP-7294A/USG
J1	MS27508E12F98S	MS27508E20F16SA	MS27508E22F21SA
J2	MS27508E22F21S	MS27508E16F26S	MS27508E14F15SB
J3	MS27508E20F16P	MS27508E20F16S	MS27508E12F8PB
J4	MS27508E14F15S	MS27508E20F16SB	MS27508E16F6PB
J5	MS27508E12F8P	MS27508E14F153A	N/A
J6	MS27508E16F6P	MS27508E12F8PA	N/A
J7	N/A	MS27508E16F6PA	N/A

CHAPTER 2

SERVICE UPON RECEIPT AND INSTALLATION

Section I. SERVICE UPON RECEIPT OF MATERIAL

2-1. Unpacking.

When packed for shipment, the power supplies and power supply test set are wrapped with plastic and placed in a cardboard container. Fiberboard blocking material is provided to minimize shock during transport. The procedure for unpacking the units is obvious upon inspection.

2-2. Checking Unpacked Equipment.

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on SF Form 364, Report of Discrepancy (ROD), as prescribed in AR 735-11-2 and AR 735-12-12.

b. Check the equipment against the component listing in the packing slip to see if the shipment is complete. The equipment should be placed in service even though a minor assembly or part that does not affect proper functioning is missing.

c. Check to see whether the equipment has been modified. (Equipment that has been modified will have the MWO number on the front panel, near the nomenclature plate.) Check also to see whether all currently applicable MWOs have been applied. (Current MWOs applicable to the equipment are listed in DA PAM 310-4).

d. For dimensions, weights, and volume of packaged items, see SB 700-20.

e. After unpacking and before installation, test the power supplies by following the procedures in chapter 6, section V.

Section II. INSTALLATION INSTRUCTIONS

2-3. Tools, Test Equipment, and Materials Required for Installation.

No tools, test equipment, or materials are required for installation of the power supplies or the power supply test set.

2-4. Installation Instructions.

The power supplies and power supply test set are portable units requiring no installation.

2-5. Interconnections.

a. Power Supplies. Interconnection details for the power supplies are provided in the appropriate system maintenance manual.

b. Power Supply Test Set. Interconnection details for the power supply test set are provided in Chapter 6.

CHAPTER 3

OPERATING INSTRUCTIONS

Section I. CONTROLS AND INDICATORS

3-1. General.

This section lists and describes the functions of the operator controls, indicators, and connectors on the power supplies and power supply test set.

3-2. Operator Controls and Indicators.

No controls or indicators are mounted on the power supplies except for the elapsed time meter located on the rear panel. See the appropriate system instruction manual for the location and operation of the power switch and overtemperature indicators. The power supply test set operator controls, indicators, and connectors are shown in figure 3-1 and described in table 3-1.

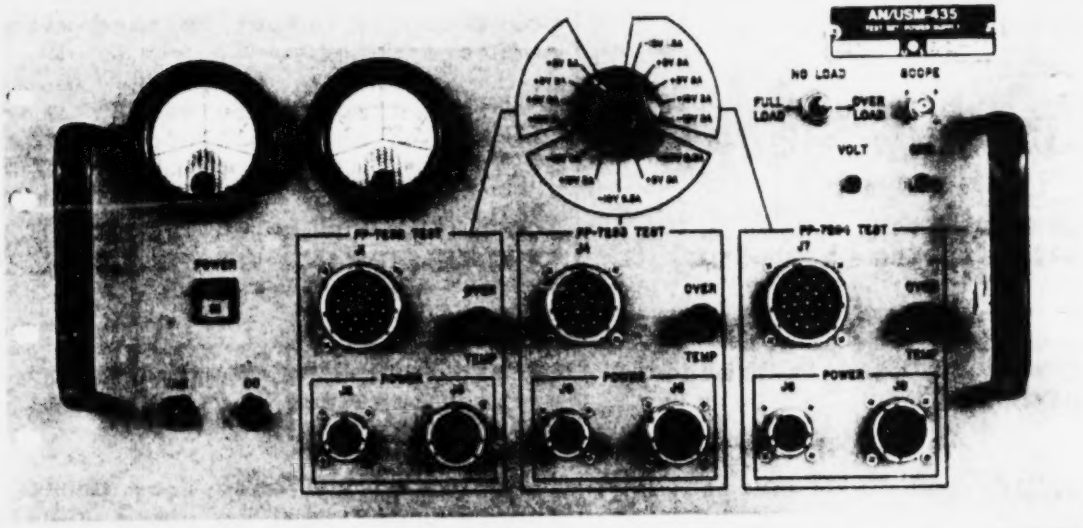


Figure 3-1. Power Supply Test Set Controls, Indicators, and Connectors

Table 3-1. Power Supply Test Set Controls, Indicators, and Connectors

Control, indicator, or connector	Function
Test switch (14-position rotary)	Selects power supply output to be monitored. Switch positions indicate full-load voltage and current.
FULL LOAD/NO LOAD/OVERLOAD (3-position toggle switch)	Connects internal full-load, overload, or no-load resistance to selected power supply output. Spring loaded to center (NO LOAD) position.
Voltmeter	Indicates voltage of selected power supply output. Can be used for reference measurement.
Ammeter	Indicates current of selected power supply output under full-load, overload, or no-load condition.
SCOPE (BNC-type jack)	Permits monitoring of selected power supply output voltage with oscilloscope.
VOLT and GND (pin-type jack)	Permit monitoring of selected power supply output voltage with accurate meter.
OVER TEMP indicators (illuminating indicators)	Light if temperature switch on corresponding power supply is activated.
POWER switch (illuminating pushbutton)	Turns on power for power supply test set and power supplies under test. Lights (POWER ON) when pressed.
AC and DC (circuit breaker buttons)	Permit resetting of ac and dc circuit breakers after cause of overload is removed.
J1, J4, and J7 (connectors)	Provides dc voltages from power supply under test to power supply test set.
J2, J5, and J8 (connectors)	Provides ac power from power supply test set to power supply under test.
J3, J6, and J9 (connectors)	Provides dc power from power supply test set to power supply under test.

Section II. OPERATION UNDER USUAL CONDITIONS

3-3. General.

This section describes the operating procedures for the power supplies and the power supply test set.

3-4. Operating Procedures.

The power supplies are remotely controlled and require no operator interaction during operation. The operation of the power supply test set is described in Chapter 6.

CHAPTER 4

ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. GENERAL

4-1. Scope.

This chapter provides instructions covering organizational maintenance of the power supply test set. For the purposes of this technical manual, organizational maintenance consists of preventive maintenance. Included in the chapter are lists of the required tools and test equipment, preventive maintenance checks and services, and troubleshooting procedures.

Section II. TOOLS AND EQUIPMENT

4-2. General.

This section lists tools and equipment required to perform organizational maintenance.

4-3. Tools and Equipment Required.

a. Tools. No special tools are required.

b. Test Equipment. No test equipment is required.

c. Materials.

(1) Cleaning compound (trichlorotrifluoroethane)
(2) Cleaning cloth
(3) Sandpaper no. 000
(4) Red glyptol

Section III. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

4-4. General.

Preventive maintenance is the systematic care, inspection, and servicing of equipment to maintain it in a serviceable condition, prevent breakdowns, and assure maximum operational capability. Preventive maintenance checks and services of the power supply test set at the organizational maintenance level are performed at daily, weekly, and monthly intervals, unless otherwise directed by the commanding officer. Maintenance forms and records to be used and maintained on this equipment are specified in DA PAM 738-750 (TAMMS).

4-5. Daily and Weekly Preventive Maintenance.

The daily and weekly preventive maintenance checks and services are listed and described in tables 4-1 and 4-2. Follow the steps in the order given. Defects discovered during operation will be noted for corrections to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted that would damage the equipment. Record all defects and the corrective action taken on the form specified in DA PAM 738-750 (TAMMS).

Table 4-1. Daily Preventive Maintenance Checks and Services

Step	Item	Procedure
1	Cables	Inspect all exterior cables for kinks and stained, cut, frayed, or otherwise damaged insulation. **NOTE** Report any abnormal conditions to direct support maintenance personnel.
2	Cleanliness	Make sure exterior surfaces of the unit are clean. If necessary, clean exterior surfaces as follows: a. Remove dust and loose dirt with a clean, soft cloth (item 4, App. D). b. Remove dust and dirt from plugs and jacks with a soft brush (item 3, App.D). **WARNING** Adequate ventilation should be provided while using trichlorotrifluoroethane. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since trichlorotrifluoroethane dissolves natural oils, prolonged contact with skin should be avoided. When necessary use heavy duty rubber gloves (item 8, App. D) that the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately. c. Remove grease, fungus, and ground-in dirt using a cloth dampened (not wet) with trichlorotrifluoroethane (Item 19, App. D) .

Table 4-2. Weekly Preventive Maintenance Check and Services

Step	Item	Procedure
1	Corrosion	Make sure exterior surfaces of the unit are free of rust and corrosion.

4-6. Monthly Preventive Maintenance.

Perform all the preventive maintenance checks and services listed in table 4-3 once each month in the sequence listed. A month is defined as approximately 30 calendar days of eight-hour-per-day operation. If the equipment is operated 16 hours a day, the monthly preventive maintenance checks and services should be performed at 15-day intervals. Adjustment of the maintenance interval must be made to compensate for any unusual operating schedule.

Table 4-3. Monthly Preventive Maintenance Checks and Services

Step	Item	Procedure
1	Cleanliness	Make sure exterior surfaces of the unit are clean. If necessary, proceed as directed in table 4-1, step 2.
2	Preservation	Inspect exterior surfaces of the unit for chipped paint or corrosion. If necessary, spot-paint surfaces as follows: a. Remove rust and corrosion from metal surfaces by sanding them with sandpaper (item 9, App. D). b. Brush two coats of light green enamel (item 7, App. D) to protect unit from further corrosion. c. Refer to the applicable cleaning and refinishing practices specified in TB 43-0118.
3	Interconnecting cables	Inspect unit interconnecting cables for loose, broken, or otherwise damaged connections.

Section IV. TROUBLESHOOTING

4-7. Troubleshooting.

Organizational troubleshooting consists of verifying any defects noted during normal operation. Once a unit is determined to be defective, intermediate support maintenance personnel will be notified. Organizational maintenance personnel will remove a defective unit from service and replace it with one of known quality.

Section V. MAINTENANCE

4-8. General.

Organizational maintenance of the power supply test set is not required.

CHAPTER 5

FUNCTIONING OF EQUIPMENT

Section I. GENERAL

5-1. Scope.

This chapter provides theory of operation for the power supplies and power supply test set. The purpose of this chapter is to explain the circuit operation of this equipment to organizational and intermediate support maintenance personnel.

5-2. Organization.

In addition to the general section, this chapter contains a functional description section and a detailed theory of operation section.

Section II. FUNCTIONAL DESCRIPTION

5-3. General.

a. Power Supplies. The power supplies each consist of four hermetically sealed dc-dc converter power modules (PS1 thru PS4), four overvoltage protectors (U1 thru U4), a thermal switch (S1), a cooling fan (blower B1), and an elapsed time meter (M1). Differences between the power supplies occur in the voltages provided by the dc-dc converter power modules, and in the types of interface connectors and pin configurations (see tables 1-1 thru 1-7). Each power supply receives 28 V dc and 3 ϕ, 400 Hz, 115 V ac from external primary power sources. The 28 V dc is applied in parallel to the four converter modules, which convert it to the dc voltages listed in table 1-1. The remote-sensing feature of the converter outputs is used to compensate for supply voltage drops across long interconnecting cables. The voltage outputs are protected from excessive voltage by modular overvoltage protectors connected across all power supply dc outputs. The 3-ϕ ac input operates blower B1, with 1 ϕ operating the running time meter. If a power supply overheats, the thermal switch closes to provide a warning indication to external equipment.

b. Power Supply Test Set. The power supply test set routes 3-ϕ, 400-Hz ac, and 28-V dc facility line power to the power supplies under test and receives power supply outputs that have been preselected on the three-position toggle switch. The power supply output selected is monitored by a voltmeter and routed via an ammeter to FULL LOAD, NO LOAD, or OVERLOAD. Test jacks are provided, allowing voltage to be

monitored by an external oscilloscope or voltmeter. Front-panel indicators are used to monitor the status of the power supply over-temperature sensors. The power supply external sense inputs are provided by the power supply test set to compensate for test cable loss.

The main power inputs are protected by ac and dc circuit breakers mounted on the power supply test set front panel. Relays are included to protect the power supplies from overheating by interrupting dc power if ac (blower) power is absent. The ac and dc power input lines are routed through EMI filters to eliminate high-frequency line noise.

Eleven interface cables, including the power input cables, are provided with the power supply test set. Instructions for operating the test set are included in Chapter 6.

Section III. DETAILED THEORY OF OPERATION

5-4. General.

This section provides detailed circuit theory for the power supplies. Since the three power supplies use sealed converter and overvoltage protector modules, the theory of operation in this section is limited to a description of the main chassis of the power supply units (see figures FO-1, FO-2, and FO-3).

5-5. DC-DC Converter Power Modules.

The dc-dc converter power modules for each power supply are designated PS1 thru PS4. 28 V dc is applied in parallel to all of the converter modules. Regulated dc outputs from the converter modules are routed to the various system units via appropriate interface connectors. Remote-sense dc returns are obtained from the system units via interface connectors. Remote sensing permits a converter module to regulate to the actual voltage at the load because of the negligible voltage drop across the remote-sense return line. For those modules not using the remote-sense feature (see table 1-1), the remote-sense input is jumpered to the dc output at the converter module terminals.

5-6. Overvoltage Protectors.

Overvoltage protectors U1 thru U4 are connected across the outputs of the converter modules. For those converter modules providing both positive and negative voltage outputs, the overvoltage protectors are connected between positive and negative outputs. If an output voltage or pair of voltages should exceed the limit set for the corresponding overvoltage protector, crowbar action will cause the protector to trip and present a low impedance that reduces the output voltage to less than 1 V within 15 µs. When the cause of overvoltage is removed, normal operation can be restored by momentarily deenergizing the power supply.

5-7. Blower, Elapsed Time Meter, and AC Interlock.

Three ϕ, 115 V ac at 400 Hz is received by each power supply and applied to the blower. One ϕ of this ac input is used to operate elapsed time meter M1. Pins D and E of the ac input connector are jumpered to permit external interlock wiring.

5-8. Thermal Switch.

Thermal switch S1 is mounted on the heat sink of each power supply. If a power supply overheats, the corresponding thermal switch closes. The resulting path to ground causes a warning indicator on the system indicator panel to light.

CHAPTER 6

INTERMEDIATE SUPPORT MAINTENANCE INSTRUCTIONS

Section I. GENERAL REQUIREMENTS

6-1. Scope.

This chapter provides intermediate support maintenance procedures for the power supplies. Included in the chapter are lists of the required tools and equipment, troubleshooting procedures, and test procedures.

Section II. TOOLS AND EQUIPMENT

6-2. General.

This section lists the tools and equipment required to perform intermediate support maintenance.

6-3. Tools and Equipment Required. Lists of authorized common tools and equipment are provided as part of the Maintenance Allocation Chart (MAC) located in Appendix B of this manual. Appendix D of this manual is a list of expendable supplies and materials required.

Section III. TROUBLESHOOTING

WARNING

High voltage is used in the operation of this equipment. Avoid contacting high-voltage connections when installing or operating this equipment. Injury or death may result if personnel fail to observe safety precautions.

6-4. General.

This section provides troubleshooting procedures for the power supplies to isolate a malfunction to the dc-dc converter power module, overvoltage protector (OVP) module, blower, or thermal switch level for the units. Any trouble beyond the scope of intermediate support maintenance will be referred to depot level maintenance personnel.

6-5. Troubleshooting Procedures.

The troubleshooting procedures are described in the power supply trouble sectionalization chart (see table 6-1). Check interconnecting cable continuity (see figures FO-1 thru FO-3). After a malfunction is corrected, perform the appropriate adjustment procedures described in section VI.

NOTE

Equipment setups require the special test equipment cables designated as WXX, and standard coaxial test cables (such as RG 58/LL), together with the appropriate connectors or adaptors and flexible meter leads.

Table 6-1. Power Supply Trouble Sectionalization Chart

Item No.	Item of check	Test conditions	Test equipment connection and settings	Normal Indication	If Indication is Abnormal
1	Cooling	Operation with test set. Load switch on test set to FULL LOAD.	a. Perform the following: (1) Connect power supplies to test set as shown in figure 6-2. (2) Apply power to test set.	a. Cooling fans in all power supplies operate.	a. Replace inoperative fan.
			b. Same as above.	b. OVER TEMP indicators do not light.	b. Proceed as follows: (1) Remove bottom cover from overheated power supply. (2) Place hand near heat sink in vicinity of suspect converter module. (3) If heatsink is relatively cool, replace S1. See paragraph 6-8.a(5). (4) If heat sink is abnormally hot, locate defective converter module and replace.

Table 6-1. Power Supply Trouble Sectionalization Chart - Continued

Item No.	Item of check	Test conditions	Test equipment connection and settings	Normal Indication	If Indication is Abnormal
2	Approximate voltages at full load	Operation with test set.	Perform the following: (a) Connect power sup- to test set as shown in figure 6-2. (b) Apply power to test set. (c) Select supply output to be monitored with test switch. (d) Hold load switch in FULL LOAD position. (e) Repeat steps (c) and (d) for each test switch position.	Meters read approx- imate values shown in switch positions in table 6-2. **NOTE** If more precise measurements are desired, connect dvm to test set as shown in figure 6-2. Occasional trip- ping of the overvoltage pro- tectors when the load switch is placed in FULL LOAD position requires momen- tary removal of main power while holding load switch in posi- tion to reset OVPs.	Proceed as follows: (a) See table 6-2 to determine converter module and OVP mod- ule associated with faulty readings. (b) Unsolder OVP module to isolate trouble to converter or OVP module. (c) Recheck readings. If voltage is normal, adjust (see item 5 below) or replace OVP module; if voltage is high or low and cannot be adjusted via poten- tiometer on con- verter module, replace converter module.

Table 6-1. Power Supply Trouble Sectionalization Chart - Continued

Item No.	Item of check	Test conditions	Test equipment connection and settings	Normal Indication	If Indication is Abnormal
3	Overload current limiting	Operation with test set.	Continue from item 2 as follows: (a) Select supply output to be monitored with test switch. (b) Hold load switch in OVERLOAD position. (c) Repeat steps (a) and (b) for each test switch position.	Voltage drops to low value, limiting current, for each test switch position.	See table 6-2 to determine converter module associated with faulty readings, and replace module associated with faulty readings.
4	Rms ripple	Operation with test set and rms voltmeter.	Continue from item 3 as follows: (a) Use BNC cable to connect true rms voltmeter to SCOPE connector on test set. (b) Place voltmeter RANGE switch in 0.1 VOLT position. (c) Select supply output to be monitored with test switch. (d) Hold load switch in FULL LOAD position and note rms voltmeter reading.	Ripple less than 50 mV rms for all positions.	See table 6-2 to determine converter module associated with faulty readings, and replace.

Table 6-1. Power Supply Trouble Sectionalization Chart - Continued

Item No.	Item of check	Test conditions	Test equipment connection and settings	Normal Indication	If Indication is Abnormal
4 Cont			(e) Repeat steps (c) and (d) for each test switch position. (f) Repeat steps (c), (d), and (e) with load switch in NO LOAD position.		
5	Overvoltage protector modules	OVP terminals unsoldered.	Proceed as follows: **NOTE** Do not perform this test as routine procedure (see paragraph 6-11b). (a) Connect OVP module in test setup shown in figure 6-3. (b) Perform adjustment procedure described in paragraph 6-12b.	Overvoltage protector trips at approximate voltage indicated in table 6-2; momentary interruption of supply voltage permits recovery.	Proceed as follows: (a) Adjust OVP (via potentiometer on OVP module) to correct trip point. (b) If step (a) fails, replace OVP.

Section IV. MAINTENANCE OF THE POWER SUPPLIES

6-6. General.

This section provides maintenance procedures that are the responsibility of intermediate support maintenance personnel. The section includes inspection and cleaning of the power supplies.

6-7. Maintenance Procedures.

The following items should be performed along with intermediate support maintenance operations. Remove the top cover in accordance with paragraph 6-8.

WARNING

Before performing any inspection procedure, insure that power is disconnected from the power supply.

a. Inspection.

(1) Inspect all interior cables for kinks and strained, cut, frayed, or otherwise damaged insulation. Check cable connectors for correct pin depths and make sure they are securely mounted to cables.

(2) Inspect exterior surfaces of the unit for dust, chipped paint, and corrosion. If necessary, spot paint surfaces as follows:

(a) Remove rust and corrosion from metal surfaces by lightly sanding them with no. 000 sandpaper (item 9, App. D).

(b) Brush two coats of light green semi-gloss enamel, MIL-E-15090 class 2 type III color number 24410 IAW FED standard 595 (item 7, App. D) to protect it from further corrosion.

(c) Refer to the applicable cleaning and refinishing practices specified in TB 43-0118.

b. Cleaning. Make sure exterior surfaces of the unit are clean. If necessary, clean exterior surfaces as follows:

(1) Remove dust and loose dirt with a clean, soft cloth (item 4, App. D).

(2) Remove dust and dirt from plugs and jacks with a brush (item 3, App. D).

WARNING

Adequate ventilation should be provided while using trichlorotrifluoroethane. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since trichlorotrifluoroethane dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use heavy duty rubber gloves (item 8, App. D) that the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.

(3) Remove grease, fungus, and ground-in dirt using a cloth dampened (not wet) with trichlorotrifluoroethane (item 19, App. D).

6-8. Disassembly/Assembly Procedures.

The following paragraphs provide step-by-step instructions for disassembling and assembling the power supplies.

a. Power Supply Disassembly. Power supply disassembly consists of removing the top and bottom covers, power supply modules, overvoltage protection modules and other assemblies. Refer to figure 6-1 for component locations.

(1) Top and bottom cover removal. Remove either top cover (2) or bottom cover (3) by loosening 24 captive screws (1) that secure cover to the chassis (4).

(2) Cover gasket removal.

(a) Remove top or bottom cover in accordance with paragraph 6-8a(1).

NOTE

Use damaged gasket (4A) as a pattern and cut new gasket from rubber sheet. (Item 11, App. D is used on top cover; item 10, App. D is used on bottom cover.)

(b) Use knife or other sharp tool to cut away and remove damaged gasket (4A).

WARNING

Adequate ventilation must be provided while using trichlorotrifluoroethane. Prolonged breathing of vapor should be avoided. The solvent must not be

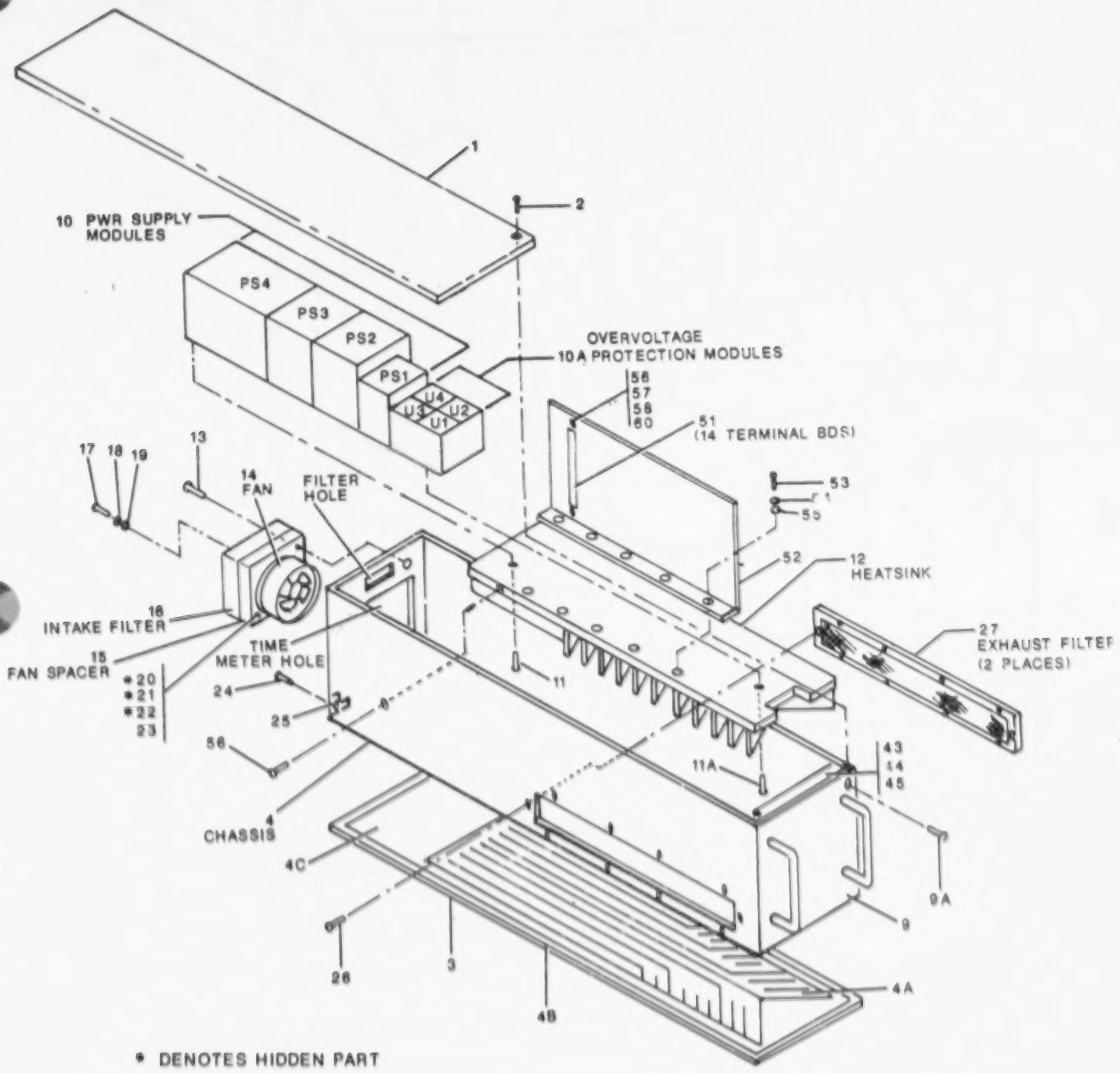
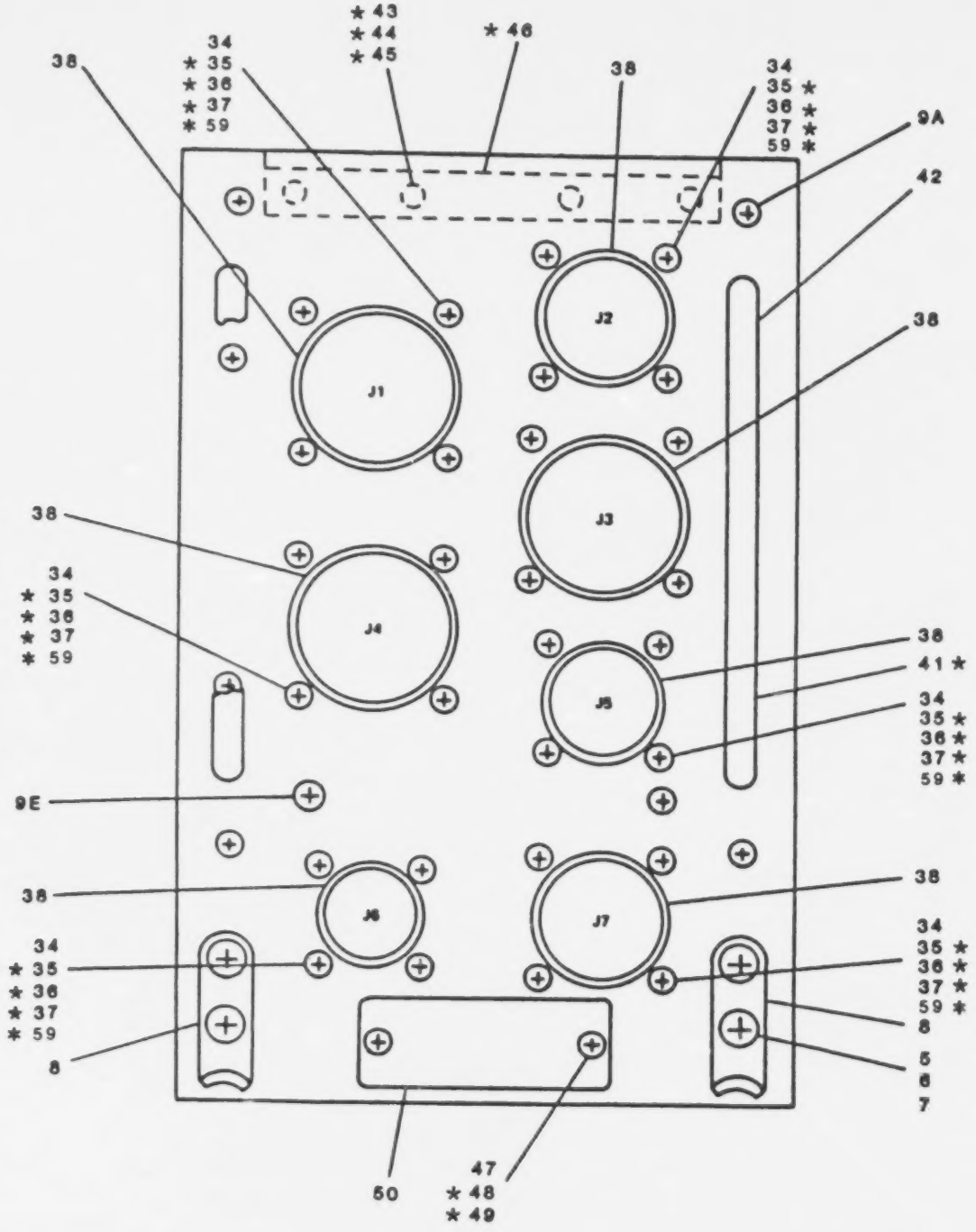


Figure 6-1. Power Supply PP-7293A/USQ Component Locations (Sheet 1 of 3)



VIEW B-B

★ DENOTES HIDDEN PART

Figure 6-1. Power Supply PP-7293A/USQ Component Locations (Sheet 2 of 3)

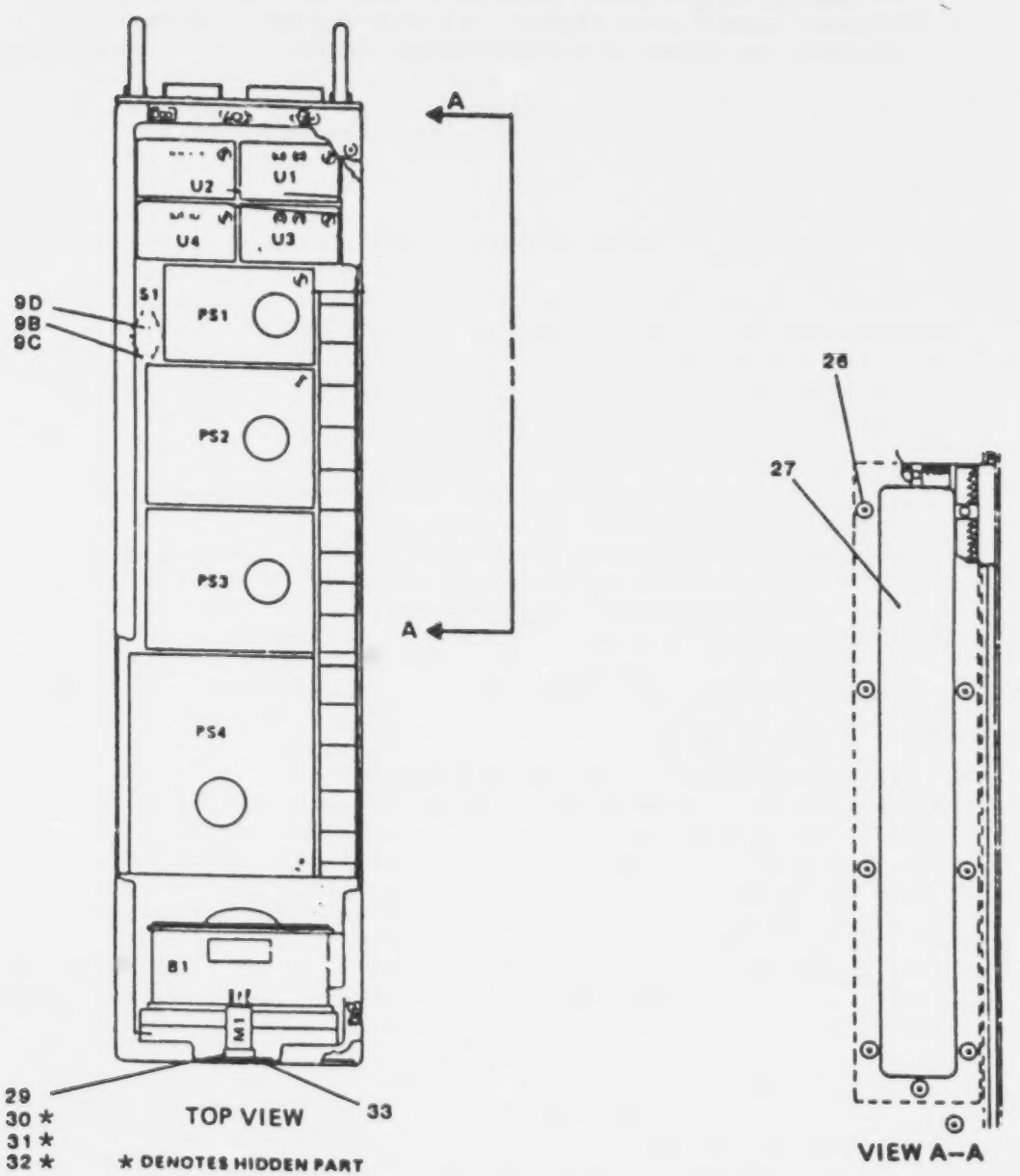


Figure 6-1. Power Supply PP-7293A/USQ Component Locations (Sheet 3 of 3)

used near heat or open flame; the products of decomposition are toxic and irritating. Since trichlorotrifluoroethane dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use heavy duty rubber gloves (item 8, App. D) that the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.

(c) Remove old adhesive using a cloth dampened (not wet) with trichlorotrifluoroethane (item 19, App. D).

(3) Cover shield gasket removal.

(a) Remove top or bottom cover in accordance with paragraph 6-8a(1).

(b) Remove 20 rivets securing shield gasket (4B) and plate (4C) to top or bottom cover (2 or 3) in accordance with paragraph 6-8c, steps (1) through (5) and remove shield gasket.

(4) Externally relieved screw removal.
(a) Remove top or bottom access cover in accordance with paragraph 6-8a(1).
(b) Remove a sufficient number of rivets surrounding the area where defective externally relieved screw (1) is located. Refer to paragraph 6-8c, steps (1) through (5).
(c) Pull shield gasket (4B) away from plate (4C) a sufficient amount to gain access to defective screw, then use pair of small bolt cutters to cut off screw head, and remove washer and defective screw.

(5) Thermostat switch (S1) removal.
(a) Remove top cover (2) in accordance with paragraph 6-8a(1).
(b) Remove two screws (9B) and four washers (9C) that secure thermostat switch S1 (9D) to heatsink (12).
(c) Pull heatshrink tubing away from terminals; then tag and unsolder wires from switch (9D) and remove switch.

(6) Holddown hook removal. Remove two screws (5), lock washers (6), and flat washers (7) that secure holddown hook (8) to front panel (9) and remove holddown hook.

(7) Power supply module PS1, PS2, PS3, or PS4 removal.
(a) Remove top and bottom covers (2 and 3) in accordance with paragraph 6-8a(1).
(b) Make a sketch of the top of the module (10) and identify pins and related wires (some modules do not have pin markings).
(c) Tag and unsolder all electrical connections from the module (10).
(d) Turn the chassis bottom side up and remove four screws (11) that secure power supply module (10) to heatsink (12).

CAUTION

Tap the module with a wood or rubber instrument to free it from the heatsink. Do not use a screwdriver or other metallic instrument to pry the module loose; the heatsink surface can be damaged and cause degraded performance and premature failure of the module.

(e) Turn the chassis upright and remove the module (10) from the heatsink (12).

(8) Overvoltage protection modules U1, U2, U3, or U4 removal.
(a) Remove top and bottom covers (2 and 3) in accordance with paragraph 6-8a(1).
(b) Tag and unsolder wires from module (10A).
(c) Turn the chassis bottom side up and remove two screws (11A) that secure module (10A) to heatsink (12).

CAUTION

Tap the module with a wood or rubber instrument to free it from the heatsink. Do not use a screwdriver or other metallic instrument to pry the module loose; the heatsink surface can be damaged and cause degraded performance and premature failure of the module.

(d) Turn the chassis upright and remove the module (10A) from the heatsink (12).

(9) Intake filter removal.
(a) Remove top and bottom covers (2 and 3) in accordance with paragraph 6-8a(1).
(b) Remove eight screws (13) that secure the fan (14), fan spacer (15) and intake filter (16) to chassis (4) and carefully remove assembly from the chassis.
(c) Tag and remove three wires connected to the fan terminal block.
(d) Remove four screws (17), lock washers (18), and flat washers (19) that secure intake filter (16) to fan spacer (15) and fan (14).

(10) Fan spacer removal.
(a) Remove top and bottom covers (2 and 3) in accordance with paragraph 6-8a(1).
(b) Remove intake filter (16) from chassis (4) in accordance with paragraph 6-8c(9), steps (b) through (d).
(c) Loosen four screws (20), lock washers (21), flat washers (22) and rim clinch clamps (23) that secure fan (14) to fan spacer (15) and remove spacer.

(11) Cooling fan B1 removal.
   (a) Remove intake filter (16) from chassis in accordance with paragraph 6-8a(9).
   (b) Loosen four screws (20), lock washers (21), flat washers (22), and rim clinch clamps (23) that secure fan spacer (15) to fan (14). Turn the clamps so that flat side is toward the fan and remove fan (14).

(12) Support plate removal. To remove the support plate, remove bottom cover (3) in accordance with paragraph 6-8a(1), then remove three screws (24) that secure support plate (25) to chassis (4) and remove the plate from the chassis.

(13) Exhaust filter removal.
   (a) Remove bottom cover (3) in accordance with paragraph 6-8a(1).
   (b) Remove ten screws (26) that secure exhaust filter (27) to side of chassis (4) and remove exhaust filter.

(14) Time meter M1 removal.
   (a) Remove top cover (2) in accordance with paragraph 6-8a(1).
   (b) Pull heatshrink tubing away from connector terminals, tag, and unsolder wires from meter (33).
   (c) Remove two screws (29), lock washers (30), flat washers (31), and nuts (32) that secure time meter (33) to chassis (4) and remove time meter.

(15) Angle bracket removal.
   (a) Remove front panel in accordance with paragraph 6-8a(19), step (a), (b) and (c).
   (b) Remove four nuts (43), lock washers (44), and flat washers (45) that secure brackets (46) to screw inserts on rear of panel (9) and remove angle brackets.

(16) Connector removal. The number of connectors varies with each power supply, but the removal procedure is the same.
   (a) Remove top and bottom covers in accordance with paragraph 6-8a(1).
   (b) Remove holddown hooks (8) in accordance with paragraph 6-8a(6).
   (c) Remove eight screws (9A) that secure front panel (9) to chassis (4) and two screws (9E) that secure front panel to heatsink (12). Remove panel from chassis.
   (d) Remove four screws (34), flat washers (35), lock washers (36), and nuts (37) that secure connector (38) to front panel. Also remove terminal lug (59).
   (e) Tag each wire, then use a removal tool to remove each wire from connector. Remove connector from front panel (9).

(17) Handle removal.
   (a) Remove top and bottom covers in accordance with paragraph 6-8a(1).
   (b) Remove holddown hooks (8) in accordance with paragraph 6-8a(6).

(c) Remove eight screws (9A) that secure front panel (9) to chassis (4) and two screws (9E) that secure panel to heatsink (12). Remove panel from chassis.
(d) Remove two screws (41) that secure handle (42) to front panel and remove handle.

(18) Identification plate removal. To remove the identification plate, remove two screws (47), lock washers (48), and flat washers (49) that secure identification plate (50) to front panel.

(19) Front panel removal.
(a) Remove top and bottom covers in accordance with paragraph 6-8a(1).
(b) Remove holddown hooks (8) in accordance with paragraph 6-8a(6).
(c) Remove two screws (9E) that secure front panel (9) to heatsink (12). Also remove eight screws (9A) that secure front panel to chassis. Carefully lay front panel face down.
(d) Remove all front panel connectors (38), in accordance with paragraph 6-8a(16).
(e) Remove handles (42) in accordance with paragraph 6-8c(17).
(f) Remove angle brackets (46) in accordance with paragraph 6-8a(15).
(g) Remove identification plate (50) in accordance with paragraph 6-8a(18).

(20) Terminal board removal.

(a) Remove top and bottom covers (2 and 3) in accordance with paragraph 6-8a(1).
(b) Remove power supply modules PS1, PS2, PS3 and PS4 in accordance with paragraph 6-8a(7).
(c) Remove overvoltage protection modules U1, U2, U3 and U4 in accordance with paragraph 6-8a(8).
(d) Remove terminal board plate (52) by removing five screws (53), lock washers (54), and flat washers (55).
(e) Tag and unsolder all electrical connections from terminal board(s) to be removed.
(f) Remove terminal board (51) by removing two screws (56), lock washers (57), flat washers (58), and nuts (60).

b. Power Supply Assembly. Power supply assembly consists of replacing the top and bottom covers, power supply modules, overvoltage protection modules, and other assemblies. Refer to figure 6-1 for component locations.

(1) Top and bottom cover installation. Install appropriate cover (2 or 3) on chassis (4) with 24 self-locking captive screws (1). Use impressions on rubber padding to determine mounting positions.

(2) Cover gasket replacement.
  (a) Use damaged gasket (4A) as a pattern and cut new gasket from rubber sheet. (Item 11, App. D is used on top cover, item 10, App. D is used on bottom cover.)
  (b) Bond gasket (4A) to cover using clear adhesive, type 732 (item 2, App. D) and allow one-minute drying time .
  (c) Install top or bottom cover (2 or 3) on chassis (4) in accordance with paragraph 6-8b(1).

(3) Cover shield gasket replacement.
  (a) Use 20 rivets to secure shield gasket (4B) and plate (4C) to top or bottom cover in accordance with paragraph 6-8c, step 6.
  (b) Install top or bottom cover on chassis (4) in accordance with paragraph 6-8b(1).

(4) Captive screw replacement.
  (a) Obtain replacement washer, and use center punch and hammer to make washer conical in shape.
  (b) Place conically-shaped washer over hole in access plate where defective captive screw was removed. Use pliers to secure washer.
  (c) Thread replacement captive screw into hole and through washer. Use pliers to flatten washer as much as possible.
  (d) Replace rivets to secure shield gasket (4B) to plate (4C). (Refer to paragraph 6-8c, step 6.)

(5) Thermostat switch S1 replacement.
  (a) Solder wires to terminals of thermostat switch S1 (9D) as tagged during removal.
  (b) Slide heatshrink tubing (item 14, App. D) over connections and shrink. Remove tags from wires.
  (c) Ensure that bottom of switch is free of oil and dirt. Spread a thin, even coat of silicone compound, type DC340 (item 5, App. D) on the bottom of the switch. Allow one-minute drying time.
  (d) Install thermostat switch S1 (9D) on heatsink (12) with two screws (9B) and washers (9C).
  (e) Install top cover (2) on chassis (4) in accordance with paragraph 6-8b(1).

(6) Holddown hook replacement. Secure each holddown hook (8) on front panel (9) with two screws (5), lock washers (6), and flat washers (7).

(7) Power supply module PS1 through PS4 replacement.
  (a) Ensure that bottom of module is free of oil and dirt. Spread a thin coat of silicone compound, type DC340 (item 5, App. D), on the bottom of the module. Allow one-minute drying time.
  (b) Turn the chassis (4) upright and position the module (10) on the heatsink (12).

(c) Turn the chassis (4) bottom-side up and secure module (10) to heatsink (12) with four screws (11).
(d) Solder wires, as marked, to terminals of power supply module (10) and remove tags.
(e) Install top and bottom covers on chassis (4) in accordance with paragraph 6-8b(1).

(8) Overvoltage protection module U1 through U4 replacement.
(a) Ensure that bottom of module is free of oil and dirt. Spread a thin coat of silicone compound type DC340 (item 5, App. D) on the bottom of the module. Allow one-minute drying time.
(b) Turn the chassis (4) upright and position the module (10A) on the heatsink (12).
(c) Turn the chassis bottom side up and secure the module to the heatsink with two screws (11A).
(d) Solder wires, as marked, to terminals of modules (10A) and remove tags.
(e) Install top and bottom covers on chassis in accordance with paragraph 6-8b(1).

(9) Intake filter replacement.
(a) Secure the intake filter (16) to the fan spacer (15) and cooling fan (14) using four screws (17), lock washers (18), and flat washers (19).
(b) Install RF contact strip, (item 6, App. D) to the filter with pressure sensitive tape, type 467 (item 18, App. D).
(c) Connect three wires as marked to the fan terminal block and remove tags.
(d) Secure the fan (14), fan spacer (15), and intake filter (16) to the chassis (4) with eight screws (13).
(e) Install top and bottom covers (2 and 3) in accordance with paragraph 6-8b(1).

(10) Fan spacer replacement.
(a) Secure fan (14) to fan spacer (15) in accordance with paragraph 6-8b(11), step (a).
(b) Secure fan spacer to intake filter (16) and filter to chassis (4) in accordance with paragraph 6-8b(9), steps (a) through (d).
(c) Replace top and bottom covers (2 and 3) in accordance with paragraph 6-8b(1).

(11) Cooling fan B1 replacement.
(a) Install the fan (14) on the fan spacer (15) and turn the rim clinch clamps (23) so that round side is toward the fan and securing fan. Tighten four screws (20), lock washers (21), flat washers (22), and rim clinch clamps (23) to secure fan.
(b) Install intake filter in chassis in accordance with paragraph 6-8b(9).

(12) Support plate replacement. Secure support plate (25) to chassis (4) with three screws (24), then replace bottom cover (3) in accordance with paragraph 6-8b(1).

(13) Exhaust filter replacement.
   (a) Install RF contact strip, (item 6, App. D), to the exhaust filter with pressure sensitive tape, type 467 (item 18, App. D).
   (b) Secure exhaust filter (27) to the side of the chassis with ten screws (26).
   (c) Install bottom cover (3) on chassis (4) in accordance with paragraph 6-8b(1).

(14) Time meter M1 replacement.
   (a) Solder wires, as tagged, to terminals of time meter (33).
   (b) Slide heatshrink tubing (item 12, App. D) over connections and remove tags.
   (c) Secure time meter (33) to chassis (4) with two screws (29), lock washers (30), flat washers (31), and nuts (32).
   (d) Install top cover (2) on chassis (4) in accordance with paragraph 6-8b(1).

(15) Angle bracket replacement.
   (a) Secure bracket (46) to studs on rear of front panel (9) with four nuts (43), lock washers (44), and flat washers (45).
   (b) Replace front panel in accordance with paragraph 6-8b(19) steps (f), (g), and (h).

(16) Connector replacement. The number of connectors varies with the power supply, but the replacement procedure is the same.
   (a) Use insertion tool to insert wires into connector (38) as marked during removal. Remove tags.
   (b) Secure connector (38) to front panel (9) using four screws (34), flat washers (35), lock washers (36), and nuts (37) with terminal lug (59).
   (c) After ensuring the RF contact strip is intact, secure front panel (9) to chassis with eight screws (9A) and secure to heatsink with two screws (9E).
   (d) Replace holddown hooks (8) in accordance with paragraph 6-8b(6).
   (e) Replace top and bottom covers (2 and 3) in accordance with paragraph 6-8b(1).

(17) Handle replacement.
   (a) Secure handle (42) on front panel (9) with two screws (41).
   (b) After ensuring the RF contact strip is intact, secure front panel to chassis with eight screws (9A) and secure to heatsink with two screws (9E).
   (c) Replace holddown hooks (8) in accordance with paragraph 6-8b(6).

(d) Replace top and bottom (2 and 3) covers in accordance with paragraph 6-8b(1).

(18) Identification plate replacement. Secure identification plate (50) on front panel (9) with two screws (47), lock washers (48), and flat washers (49).

(19) Front panel replacement.
(a) Secure identification plate in accordance with paragraph 6-8b(18).
(b) Secure angle brackets (46) to studs on rear of front panel (9) with four nuts (43), lock washers (44), and flat washers (45).
(c) Install RF contact strip (item 6, App. D) to the chassis front panel opening with pressure sensitive tape (item 18, App. D).
(d) Secure handles (42) on front panel (9) with two screws (41).
(e) Replace connectors J1 through J7 in accordance with paragraph 6-8b(16).
(f) Replace holddown hooks in accordance with paragraph 6-8b(6).
(g) Secure front panel to heatsink (12) with two screws (9E). Also secure front panel to chassis with eight screws (9A).
(h) Replace top and bottom covers (2 and 3) in accordance with paragraph 6-8b(1).

(20) Terminal board replacement.

(a) Secure terminal board (51) to plate (52) with two screws (56), lock washers (57), flat washers (58) and nuts (60).
(b) Solder wires, as marked, to terminals of terminal board (51) and remove tags.
(c) Secure plate (52) to heatsink (12) using five screws (53), lock washers (54) and flat washers (55).
(d) Install overvoltage protection modules U1, U2, U3 and U4 in accordance with paragraph 6-8b(8).
(e) Install power supply modules PS1, PS2, PS3, and PS4 in accordance with paragraph 6-8b(7).
(f) Install top and bottom covers on chassis (4) in accordance with paragraph 6-8b(1).

c. Riveting.

To replace a rivet(s) on chassis or hardware item, proceed as follows:

(1) Remove covers and components as required to gain access to rivet(s) to be replaced. (Refer to Tool Lisitng in Appendix B.)
(2) Center punch the rivet head of rivet to be replaced.
(3) Using a drill smaller than the diameter of the rivet, drill out the center of rivet head to be replaced.

(4) Increase the size of the drill to rivet size or a size slightly smaller than rivet size, and again drill out rivet head. Rivet head should fall off at this point. If not, position a punch or similar tool against the rivet head and carefully drive it out with a hammer.
(5) Using a punch and a hammer, punch out the remainder of the rivet to be replaced.
(6) Obtain and install appropriate size rivet. Using the riveter and appropriate size head, install the replacement rivet.

d. Angle Bracket Repair. Angle brackets (46) are repairable by removing and replacing a defective nut plate. To repair an angle bracket, remove the rivets that secure the defective nut plate in accordance with paragraph 6-8c, steps (1) through (5), then replace the nut plate and secure it to the angle bracket with two rivets in accordance with paragraph 6-8c, step (6).

e. Label Replacement. To replace the label on the cooling fan (14), proceed as follows:

(1) Use knife or other sharp instrument to lift corner of damaged label and peel it off fan.

WARNING

Adequate ventilation should be provided while using trichlorotrifluoroethane. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since trichlorotrifluoroethane dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use heavy duty rubber gloves (item 8, App. D) that the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.

(2) Clean area with a cloth dampened (not wet) with trichlorotrifluoroethane (item 19, App. D).

(3) Remove backing from replacement label, then verify that label is oriented correctly and apply it to fan.

Section V. INTERMEDIATE SUPPORT TEST PROCEDURES

6-9. General.

This section provides intermediate support test procedures for the power supplies. The test procedures indicate whether a new or repaired unit is capable of performing its assigned mission.

6-10. Test Procedures.

Use the troubleshooting procedures in table 6-1 for routine performance testing as well as troubleshooting.

Section VI. ADJUSTMENT PROCEDURES

6-11. General.

This section provides adjustment procedures for the power supply and OVP modules.

6-12. Adjustment Procedures.

CAUTION

Application of input dc voltage without connecting voltage sense lines to voltage to be sensed may result in damage to the converter module.

a. Power Supply Voltage Adjustment Procedures.

(1) Connect power supplies and digital voltmeter (dvm) to power supply test set as shown in figure 6-2.

(2) Press POWER ON pushbutton one time and ensure lighted portion of pushbutton comes on.

(3) Hold load switch on power supply test set in FULL LOAD position, and set dvm to read dc volts.

(4) Place test switch in position corresponding to converter modules to be adjusted (see table 6-2).

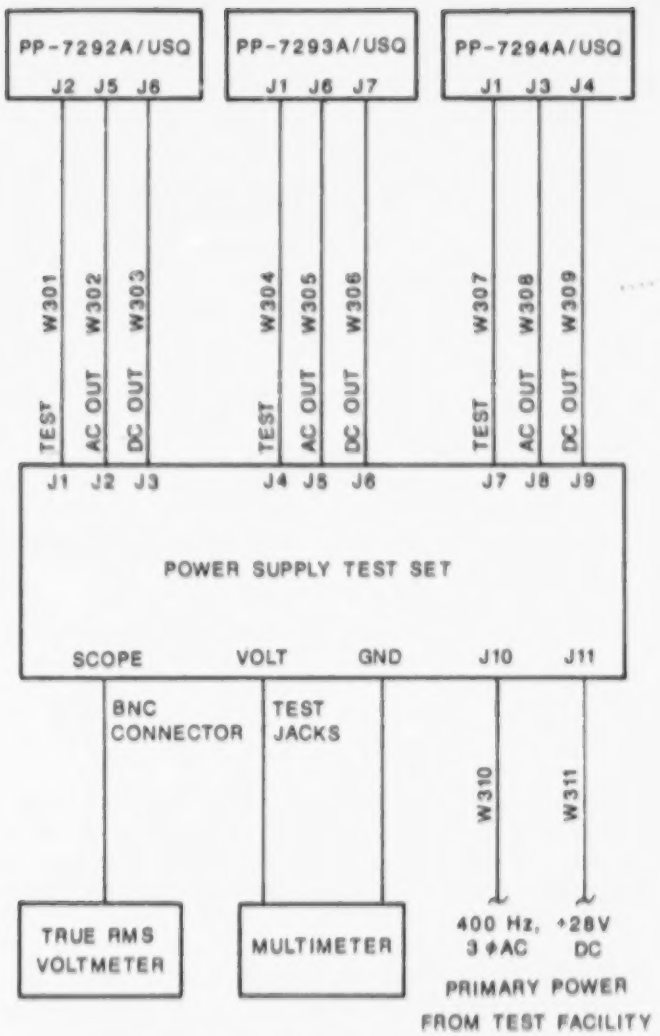
(5) Remove potentiometer cap and adjust potentiometer on converter module for dvm reading within tolerance listed in table 6-2 for specific test switch position. Release load switch and replace potentiometer cap when adjustment is complete.

(6) Rotate test switch to next position and repeat steps (3), (4) and (5). Check voltages for all test switch positions, adjust as necessary.

(7) Press POWER ON pushbutton once and ensure lighted portion of pushbutton goes off.

NOTE

Converter modules with complementary outputs (PS4 in PP-7293 and PP-7294) need not be adjusted twice; however, complementary voltages must track to within 150 mV.



NOTE: USE INTERCONNECTING CABLES SUPPLIED WITH TEST SET

Figure 6-2. Power Supply Test Setup

Table 6-2. Power Supply Data

Test Switch setting	PP-7292A/USQ				PP-7293A/USQ					PP-7294A/USQ				
	+15 V 1 A	+5 V 9 A	+5 V 9 A	+5 V 9 A	+36 V 0.5 A	-10 V 6.5 A	+5 V 9 A	+15 V 3 A	-15 V 3 A	-10 V 1.5 A	+5 V 9 A	+5 V 9 A	+15 V 3 A	-15 V 3 A
Converter module	PS1	PS2	PS3	PS4	PS1	PS2	PS3	PS4	PS4	PS1	PS2	PS3	PS4	PS4
OVP module	U1	U2	U3	U4	U1	U2	U3	U4	U4	U1	U2	U3	U4	U4
OVP module trip points, volts	+17 ±.9	+7 ±.4	+7 ±.4	+7 ±.4	+40 ±.2	-12 ±.6	+7 ±.4	+33** ±1.7		-12 ±.6	+7 ±.4	+7 ±.4	+33** ±1.7	
Converter module output voltage setting	15.25	5.25	5.25	5.25	36.25	10.25	5.25	15.25	15.25	10.25	5.25	5.25	15.25	15.25
Converter module setting tolerance (in mV)	35	35	35	35	60	35	35	35*	35*	35	35	35	35*	35*
RΩ (figure 6-2)	68	33	33	33	220	68	33	220	220	68	33	33	220	220

*Complementary supply outputs must track to within 150 mV.
**Differential.

b. OVP Module Adjustment Procedures. The following procedures should be performed before installing a replacement OVP module. It may also be used to test a suspected OVP module malfunction. See figure 6-3 and proceed as follows:

NOTE

Overvoltage protectors are not normally tested or adjusted because of limited dc-dc converter adjustment ranges. The following procedure should be used only for troubleshooting or to set the trip point of a replacement OVP.

(1) Connect OVP module in circuit shown in figure 6-3. Use current limiting resistor indicated in table 6-2.

(2) Start with power supply output of 0 V, slowly increase voltage while observing voltmeter reading. Note point at which voltage suddenly drops.

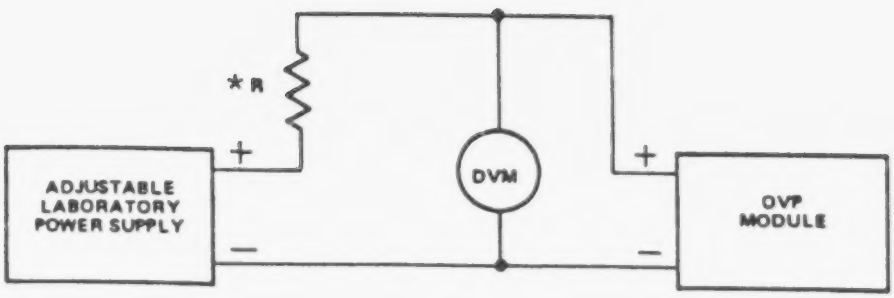
(3) If trip point for OPV module under test differs from specification listed in table 6-2, adjust potentiometer on OVP module clockwise to increase trip-point voltage, or counterclockwise to decrease trip-point voltage.

(4) Return power supply voltage to 0 V to allow OVP module recovery.

(5) Repeat steps (2), (3), and (4) until correct trip-point voltage is obtained.

(6) Place drop of red glyptol (item 28, App. D) on OVP module potentiometer shaft to prevent turning or accidental adjustment during routine procedures.

(7) Install OVP module in power supply; check and adjust voltage of corresponding converter module as necessary.



* FOR VALUE OF R, SEE TABLE 6-3.

Figure 6-3. OVP Test Setup

CHAPTER 7

INTERCONNECT WIRING LIST

This chapter contains the wire lists for the power supplies and power supply test set. The lists are used to determine point-to-point wiring. Each point's origin and destination are listed. Points that are not connected are not listed. Pin-for-pin cables are not listed. (Pin-for-pin cables are cables that have identical plugs at both ends and each pin connected has the same pin number at both ends.) All other connections are listed. Wiring interconnections shown in figures FO-1 thru FO-4 have not been repeated in this chapter.

NOTE

Wire lists and wiring diagrams take precedence over schematics due to unused circuit card connector pins.

From		To
Connector	Pin	
W310-P1	A	115 V ac ϕ1
W310-P1	B	115 V ac ϕ2
W310-P1	C	115 V ac ϕ3
W310-P1	D	Neutral
W310-P1	E	Ground
W311-P1	A	+28 V dc
W311-P1	B	+28 V dc return

APPENDIX A

REFERENCES

A-1. Technical Manuals.

TM 740-90-1	Administrative Storage of Equipment
TM 750-244-2	Procedures for Destruction of Electronics Material to Prevent Enemy Use (Electronics Command)
TM 750-245-4	Direct Support and General Support Quality Control: Inspector's Inspection Criteria
TM 43-0139	Painting Instructions for Field Use
TM 38-230-2	Preservation, Packaging, and Packing of Military Supplies and Equipments
TM 38-260	Preparation and Inspection of Industrial Production Equipment for Storage and Shipment

A-2. Technical Bulletins.

TB SIG 222	Solder and Soldering
TB SIG 355-1	Depot Inspection Standards for Repaired Signal Equipment
TB SIG 355-2	Depot Inspection Standard for Refinishing Repaired Signal Equipment
TB SIG 355-3	Depot Inspection Standard for Moisture and Fungus Resistant Treatment
TB 43-0118	Field Instructions for Painting and Preserving Electonics Command Equipment Including Camouflage Pattern Painting of Electrical Equipment Shelters

A-3. Supply Bulletins.

SB 38-100	Preservation, Packaging and Packing Materials, Supplies and Equipment Used by the Army
SB 11-30	FSC Class 6135; Dry Battery Management Data
SB 11-573	Painting and Preservation Supplies Available for Field Use for Electronics Command Equipment
CTA 50-970	Expendable Items
SB 708-41/42 (microfiche only)	Federal Supply Code for Manufacturers, United States and Canada, Code to Name, Cataloging Handbook H4-2.

A-4. Pamphlets.

DA PAM 310-1 (Microfiche only)	Index of Administrative Publications
DA PAM 310-2 (Microfiche only)	Index of Blank Forms
DA PAM 310-3 (Microfiche only)	Index of Doctrinal, Training and Organizational Publications
DA PAM 310-4 (Microfiche only)	Index of Technical Publications (Includes: Equipment Identification Lists, Lubrication Order, Modification Work Orders, Supply Bulletins, Supply Catalogs, Supply Manuals, Technical Bulletins, Technical Manuals and Technical Publications Rescinded for Active Army Use But Valid For USAR, ARNG, or FMS/IL Programs.)
DA PAM 738-750	The Army Maintenance Management System (TAMMS)

A-5. Army Regulations.

AR 310-25	Dictionary of United States Army Terms
AR 310-50	Authorized Abbreviations and Brevity Codes
AR 700-42	Classification, Reclassification, Maintenance, Insurance, and Reporting of Maintenance Training Aircraft
AR 55-38	Discrepancy in Shipment Report

A-6. Forms.

DA Form 3803	Decontamination Tag
DA Form 2028	Recommended Changes to DA Technical Manuals, Parts Lists or Supply Manual 7, 8 or 9
DA Form 2404	Equipment Inspection and Maintenance Work Sheet
DA Form 2407	Maintenance Request
DA Form 2408	Equipment Log Book Assembly Instructions for General Equipment
DA Form 2408-1	Equipment Daily or Monthly Log
DA Form 2408-5	Equipment Modification Record
SF Form 364	Report of Discrepancy (ROD)
SF Form 368	Quality Deficiency Report

APPENDIX B
MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1. General.

a. The maintenance allocation chart identifies the maintenance operations that must be performed. It assigns each of those operations to the lowest level of maintenance authorized to perform the complete task, or any part of the task, in terms of availability of time, tools, test and support equipment, skills and employment of the subsystem.

b. The Maintenance Allocation Chart (MAC) in Section II designates overall responsibility for the performance of maintenance functions for the Power Supplies PP-7292/USQ, PP-7292A/USQ, PP-7294/USQ, PP-7294A/USQ, PP-7293/USQ, PP-7293A/USQ.

c. Section III lists the special tools and test equipment required for each maintenance function as referenced from Section II.

d. Section IV contains supplemental instructions on explanatory notes for a particular maintenance function.

B-2. Maintenance Functions.

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition; i.e., to clean (decontaminate), preserve, drain, paint or replenish fuel, lubricants, hydraulic fluids, or compressed air supplied.

d. Adjust. To maintain, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

e. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test, measuring and diagnostic equipments used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy; to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. Install. The act of emplacing, seating, or fixing into position an item, part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

h. Replace. The act of substituting a serviceable like-type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services[1] or other maintenance actions[2] to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), and items, or system.

j. Overhaul. The maintenance effort (services/actions) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (i.e., DMWR) in appropriate technical publication. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like-new condition.

k. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like-new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours/miles, etc.) considered in classifying Army equipments/components.

B-3. Column Entries Used in the MAC.

a. Column 1, Group Number. Column 1 list group numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

b. Column 2, Component/Assembly. Column 2 contains the names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Functions. Column 3 lists the functions to be performed on the item listed in column 2. (For detailed explanation of these functions, see para. B-2).

d. Column 4, Maintenance Category.

(1) Column 4 specifies, by the listing of a "work time" figure in the appropriate sub-column(s), the lowest level of

[1]Services - inspect, test, service, adjust, align, calibrate, or replace.

[2]Action - welding, grinding, riveting, straightening, facing, remachining, or resurfacing.

maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform the maintenance function, at the indicated level of maintenance.

(2) If the number or complexity of the tasks within the listed maintenance function vary at different maintenance, appropriate "work time" figures will be shown for each level. The number of man-hours specified by the "work time" figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance levels are as follows:

C - Operator or crew.
O - Organizational maintenance.
F - Direct support maintenance.
H - General support maintenance.
D - Depot maintenance.

e. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, test, and support equipment required to perform the designated function.

f. Column 6, Remarks. Column 6 contains a letter code in alphabetical order which is keyed to the remarks contained in Section IV.

B-4. Column Entries Used in Tool and Test Equipment Requirements (Section III).

a. Column 1, Tool or Test Equipment Reference Code. The tool and test equipment reference code correlates with a maintenance function on the identified end item or component.

b. Column 2, Maintenance Category. The lowest level of maintenance authorized to use the tool or test equipment.

c. Column 3, Nomenclature. Name or identification of the tool or test equipment.

d. Column 4, National/NATO Stock Number. The National or NATO stock number of tool or test equipment.

e. Column 5, Tool Number. The manufacturer's part number.

SECTION II. MAINTENANCE ALLOCATION CHART FOR
POWER SUPPLY PP-7292/USQ
POWER SUPPLY PP-7292A/USQ
POWER SUPPLY PP-7294/USQ
POWER SUPPLY PP-7294A/USQ
POWER SUPPLY PP-7293/USQ
POWER SUPPLY PP-7293A/USQ

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQUIPMENT	(6) REMARKS
			C	O	F	H	D		
46	POWER SUPPLY	Inspect				0.2		10	
		Test				0.3		1,2,3	
		Adjust				0.3		1,2,3,7,8,10	
		Service				0.1		10	
		Repair				0.4		1,2,3,4,6,7,10	
4601	BRACKET, ELECTRICAL	Replace					X		A
		Repair					X		A
4602	COVER, BOTTOM ACCESS	Inspect				0.1		10	
		Replace				0.2		10	
		Repair				0.3		5,9,10	
4603	CHASSIS, ELECTRICAL	Replace					X		A
		Repair					X		A
4604	HEAT SINK	Replace					X		A
		Repair					X		A
4605	COVER, ACCESS	Inspect				0.1		10	
		Replace				0.2		10	
		Repair				0.3		5,9,10	
4606	WIRING HARNESS	Replace					X		A
		Repair					X		A
4607	TERMINAL BOARD	Replace					X		A
		Repair					X		A
49	POWER SUPPLY	Inspect				0.2		10	
		Test				0.3		1,2,3	
		Adjust				0.3		1,2,3,7,8,10	
		Service				0.1		10	
		Repair				0.4		1,2,3,4,6,7,9, 10	
4901	WIRING HARNESS,BRANCHED	Replace					X		A
		Repair					X		A

SECTION II. MAINTENANCE ALLOCATION CHART FOR
POWER SUPPLY PP-7292/USQ
POWER SUPPLY PP-7292A/USQ
POWER SUPPLY PP-7294/USQ
POWER SUPPLY PP-7294A/USQ
POWER SUPPLY PP-7293/USQ
POWER SUPPLY PP-7293A/USQ

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQUIPMENT	(6) REMARKS
			C	O	F	H	D		
4902	BRACKET, ELECTRICAL	Replace					X		A
		Repair					X		A
4903	COVER, BOTTOM ACCESS	Inspect				0.1		10	
		Repair				0.2		10	
		Replace				0.3		5,9,10	
4904	CHASSIS, ELECTRICAL	Replace					X		A
		Repair					X		A
4905	HEAT SINK	Replace					X		A
		Repair					X		A
4906	COVER, ACCESS	Inspect				0.1		10	
		Replace				0.2		10	
		Repair				0.3		5,9,10	
4907	TERMINAL BOARD	Replace					X		A
		Repair					X		A
50	POWER SUPPLY	Inspect				0.2		10	
		Test				0.3		1,2,3	
		Adjust				0.3		1,2,3,7,8,10	
		Service				0.1		10	
		Repair				0.4		1,2,3,4,6,7,10	
5001	BRACKET, ELECTRICAL	Replace					X		A
		Repair					X		A
5002	COVER, BOTTOM ACCESS	Inspect				0.1		10	
		Replace				0.2		10	
		Repair				0.3		5,9,10	
5003	CHASSIS, ELECTRICAL	Replace					X		A
		Repair					X		A
5004	HEAT SINK	Replace					X		A
		Repair					X		A

SECTION II. MAINTENANCE ALLOCATION CHART FOR
POWER SUPPLY PP-7292/USQ
POWER SUPPLY PP-7292A/USQ
POWER SUPPLY PP-7294/USQ
POWER SUPPLY PP-7294A/USQ
POWER SUPPLY PP-7293/USQ
POWER SUPPLY PP-7293A/USQ

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQUIPMENT	(6) REMARKS
			C	O	F	H	D		
5005	COVER, ACCESS	Inspect				0.1		10	
		Replace				0.2		10	
		Repair				0.3		5,9,10	
5006	HARNESS ASSEMBLY	Replace					X		A
		Repair					X		A
5007	TERMINAL BOARD	Replace					X		A
		Repair					X		A

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS FOR
POWER SUPPLY PP-7292/USQ
POWER SUPPLY PP-7292A/USQ
POWER SUPPLY PP-7294/USQ
POWER SUPPLY PP-7294A/USQ
POWER SUPPLY PP-7293/USQ
POWER SUPPLY PP-7293A/USQ

TOOL OR TEST EQUIPMENT REF CODE	MAINTE-NANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
1	H	CABLE KIT P/S	5865-01-070-6587	1951-1-1113-1
2	H	MULTIMETER	6625-01-139-2512	AN/PSM-45
3	H	POWER SUPPLY TEST SET	6625-01-038-5702	AN/USM-435
4	H	OSCILLOSCOPE	6625-01-187-7847	AN/USM-488
5	H	RIVETER KIT	6665-01-022-4165	HP-200
6	H	MAINT KIT, ELECTRONIC	6625-01-068-1665	MK-1961/G
7	H	MAINT KIT, ELECTRONIC	6625-01-068-1666	MK-1962/G
8	H	POWER SUPPLY	6625-00-437-4861	PP-7548/U
9	H	TOOL KIT, ELEC EQUIP	5180-00-605-0079	TK-100/G
10	H	TOOL KIT, ELEC EQUIP	5180-00-610-8177	TK-105/G

SECTION IV. REMARKS

REFERENCE CODE	REMARKS
A	Refer to DMWR 32-5811-074 for depot level removal, replace and repair instructions.

APPENDIX C

BASIC ISSUE ITEMS LIST, ITEMS TROOP INSTALLED OR AUTHORIZED LIST, AND REPAIR PARTS AND SPECIAL TOOLS LIST

			Page	Illus Figure
Section	I	INTRODUCTION	C-3	
	II	BASIC ISSUE ITEMS LIST (Not Applicable).	C-12	
	III	ITEMS TROOP INSTALLED OR AUTHORIZED LIST (Not Applicable) . .	C-12	
	IV	REPAIR PARTS LIST	C-13	
Group	01	Power Supply PP-7292/USQ and PP-7292A/USQ	C-13	C-1
		0101 Branched Wiring Harness W1	C-18.1	C-2
	02	Power Supply PP-7293/USQ and PP-7293A/USQ	C-20	C-3
		0201 Branched Wiring Harness W1	C-26	C-4
	03	Power Supply PP-7294/USQ and PP-7294A/USQ	C-28	C-5
		0301 Branched Wiring Harness W1	C-32B	C-6
	04	Power Supply Test Set AN/USM-435	C-34	C-7
	05	Power Supply Test Set Cable Kit	C-42	C-8
		0501 Special Purpose Cable Assy W301 . .	C-44	C-9
		0502 Special Purpose Cable Assy W302 . .	C-46	C-10
		0503 Special Purpose Cable Assy W303 . .	C-48	C-11
		0504 Special Purpose Cable Assy W304 . .	C-50	C-12
		0505 Special Purpose Cable Assy W305 . .	C-52	C-13
		0506 Special Purpose Cable Assy W306 . .	C-54	C-14
		0507 Special Purpose Cable Assy W307 . .	C-56	C-15
		0508 Special Purpose Cable Assy W308 . .	C-58	C-16
		0509 Special Purpose Cable Assy W309 . .	C-60	C-17
		0510 Special Purpose Cable Assy W310 . .	C-62	C-18
		0511 Special Purpose Cable Assy W311 . .	C-64	C-19
Section	V	SPECIAL TOOLS LIST	C-67	
	VI	NATIONAL STOCK NUMBER AND PART NUMBER INDEX . .	C-69	

Section I. INTRODUCTION

C-1. Scope.

This appendix lists basic issue items; items troop installed or authorized, repair parts; special tools; test, measurement, and diagnostic equipment (TMDE); and other support equipment required for operation and performance of organizational, direct support, and general support maintenance of the power supplies and power supply test set.

C-2. General.

This Basic Issue Items, Items Troop Installed or Authorized, Repair Parts and Special Tools List is divided into the following sections:

a. Section II. Basic Issue Items List. Not applicable.

b. Section III. Items Troop Installed or Authorized List. Not applicable.

c. Section IV. Repair Parts List. A list of repair parts authorized for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending numerical sequence, with the parts in each group listed in figure and item number sequence. Bulk materials are listed in NSN sequence.

d. Section V. Special Tools List. A list of special tools, TMDE, and support equipment authorized for the performance of maintenance at the organizational, direct support, and general support level.

e. Section VI. National Stock Number and Part Number Index. A list, in ascending numerical sequence, of all National stock numbers appearing in the listings, followed by a list, in alphanumeric sequence, of all part numbers referenced to each illustration figure and item number appearance.

C-3. Explanation of Columns.

The following provides an explanation of columns found in the tabular listings:

a. Illustration. This column is divided as follows:

(1) Figure Number. Indicates the figure number of the illustration in which the item is shown.

(2) Item Number. The number used to identify each item called out in the illustration.

b. Source, Maintenance, and Recoverability Codes (SMR).

(1) Source Code. Source codes are assigned to support items to indicate the manner of acquiring support items for maintenance, repair, or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

Code	Definition
PA	Item procured and stocked for anticipated or known usage.
PB	Item procured and stocked for insurance purpose because essentiality dictates that a minimum quantity be available in the supply systems.
PC	Item procured and stocked and which otherwise would be coded PA except that it is deteriorative in nature.
PD	Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional initial issues or outfittings. Not subject to automatic replenishment.
PE	Support equipment procured and stocked for initial issue or outfitting to specified maintenance repair activities.
PF	Support equipment which will not be stocked but which will be centrally procured on demand.
PG	Item procured and stocked to provide for sustained support for the life of the equipment. It is applied to an item peculiar to the equipment which, because of probable discontinuance or shutdown of production facilities, would prove uneconomical to reproduce at a later time.
KD	An item of a depot overhaul/repair kit and not purchased separately. Depot kit defined as a kit that provides items required at the time of overhaul or repair.
KF	An item of a maintenance kit and not purchased separately. Maintenance kit defined as a kit that provides an item that can be replaced at organizational or intermediate levels of maintenance.
KB	Item included in both a depot overhaul/repair kit and a maintenance kit.

Code	Definition
MO	Item to be manufactured or fabricated at organizational level.
MF	Item to be manufactured or fabricated at the direct support maintenance level.
MH	Item to be manufactured or fabricated at the general support maintenance level.
MD	Item to be manufactured or fabricated at the depot maintenance level.
AO	Item to be assembled at organizational level.
AF	Item to be assembled at direct support maintenance level.
AH	Item to be assembled at general support maintenance level.
AD	Item to be assembled at depot maintenance level.
XA	Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.
XB	Item is not procured or stocked. If not available through salvage, requisition.
XD	A support item that is not stocked. When required, item will be procured through normal supply channels.

NOTE

Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XA, XD, and aircraft support items as restricted by AR 700-42.

(2) Maintenance Code. Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

(a) The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position will indicate one of the following levels of maintenance:

Code	Application/Explanation
C	Crew or operator maintenance performed within organizational maintenance.
O	Support item is removed, replaced, used at the organizational level.
I	Support item is removed, replaced, used by the direct support element of integrated direct support maintenance.
F	Support item is removed, replaced, used at the direct support level.
H	Support item is removed, replaced, used at the general support level.
D	Support items that are removed, replaced, used at depot, mobile depot, specialized repair activity only.

NOTE

Codes "I" and "F" will be considered the same by direct support units.

(b) The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following codes:

Code	Application/Explanation
O	The lowest maintenance level capable of complete repair of the support item is the organizational level.
F	The lowest maintenance level capable of complete repair of the support item is the direct support level.
H	The lowest maintenance level capable of complete repair of the support item is the general support level.
D	The lowest maintenance level capable of complete repair of the support item is the depot level, performed by the Materiel Support Command Depot Activity.
L	Repair restricted to designated specialized repair activity.

Code	Application/Explanation
B	No repair is authorized. The item may be reconditioned by adjusting, lubricating, etc., at the user level. No parts or special tools are procured for the maintenance of this item.

(3) Recoverability Code. Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverablity code is entered in the fifth position of the Uniform SMR Code format as follows:

Recoverability Codes	Definition
Z	Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.
O	Reparable item. When uneconomically reparable, condemn and dispose at organizational level.
F	Reparable item. When uneconomically reparable, condemn and dispose at the direct support level.
H	Reparable item. When uneconomically reparable, condemn and dispose at the general support level.
D	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.
L	Reparable item. Repair, condemnation, and disposal not authorized below depot/specialized repair activity level.
A	Item requires special handling or condemnation procedures because of specific reasons (i.e., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. National Stock Number. Indicates the National stock number assigned to the item and will be used for requisitioning purposes.

d. Part Number. Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity) which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements, to identify an item or range of items. For BIIL and ITIAL, see explanation of description column, paragraph f.

NOTE

When a stock numbered item is requisitioned, the repair part received may have a different part number than the part being replaced.

e. Federal Supply Code for Manufacturer (FSCM). The FSCM is a 5-digit numeric code listed in SB 708-42 which is used to identify the manufacturer, distributor, or Government agency, etc. For BIIL and ITIAL, see explanation of description column, paragraph f.

f. Description. Indicates the Federal item name and, if required, a minimum description to identify the item. (In BIIL and ITIAL only, the following will be used: "The last line for each item in the BIIL and ITIAL indicates the part number with the FSCM in parentheses.")

Items that are included in kits and sets are listed below the name of the kit or set with the quantity of each item in the kit or set indicated in the quantity incorporated in unit column. When the part to be used differs between serial numbers of the same model, the effective serial numbers are shown as the last line of the description. In the Special Tools List, the initial Basis of Issue (BOI) appears as the last line in the entry for each special tool, TMDE, and support equipment. When density of equipments supported exceeds density spread indicated in the basis of issue, the total authorization is increased accordingly.

g. Unit of Measure (U/M). Indicates the standard of the basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr, etc.). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required unit of measure will be requisitioned.

h. Quantity Furnished with Equipment (Basic Issue Items Only). Indicates the quantity of the basic issue item furnished with the equipment.

i. Quantity Authorized (Items Troop Installed or Authorized Only). Indicates the quantity of the item authorized to be used with the equipment.

j. Quantity Incorporated in Unit. Indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that no specific quantity is applicable (e.g., shims, spacers, etc.).

b. (Applicable to revisions or changes only.) Action change codes indicated in the left-hand margin of the listing page denote the following:

N - Indicates an added item
C - Indicates a change in data
R - Indicates a change in NSN only

c. NSN's that are missing from P source coded items have been applied for and will be added to this TM by future change or revision when they are entered in the Army Master Data File (AMDF). Until the NSN's are established and published, submit exception requisition to Commander, Vint Hill Farms Station, Warrenton, Virginia, Attn: Electronics Materiel Readiness Activity (NICP).

d. Usable on codes are shown in the description column. Uncoded items are applicable to all models. Identification of the usable codes in this publication are:

CODE	USE ON
Q26	PP-7292/USQ
R41	PP-7292A/USQ
Q30	PP-7293/USQ
R32	PP-7293A/USQ
Q20	PP-7294/USQ
R44	PP-7294A/USQ

C-5. How to Locate Repair Parts.

a. When National Stock Number or Part Number is Unknown.

(1) First. Using the table of contents, determine the assembly or subassembly within which the repair part belongs. This is necessary since illustrations are prepared for assemblies or subassemblies, and listings are divided into the same groups.

(2) Second. Find the illustration covering the assembly or subassembly to which the repair part belongs.

(3) Third. Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(4) Fourth. Using the Repair Parts Listing, find the figure and item number noted on the illustration.

b. When National Stock Number or Part Number is Known.

(1) First. Using the Index of National Stock Numbers and Part Numbers, find the pertinent national stock number or part number. This index is in ascending NSN sequence followed by a list of part numbers in ascending alphanumeric sequence, cross-referenced to the illustration figure number and item number.

(2) Second. After finding the figure and item number, locate the figure and item number in the repair parts list.

C-6. Abbreviations.

Abbreviations	Explanation
ADPTR	Adapter
BD	Board
BR	Branched
CAP	Capacitor
CCA	Circuit Card Assembly [also called Printed Wiring Assembly (PWA)]
CER	Ceramic
CG	Cage
CHAS	Chassis
CKT	Circuit
CL	Clinch
CLP	Clamp
CMPNT	Component
CMPSN	Composition
CONN	Connector
DGTL	Digital
DSPL	Display
DVC	Device
DWR	Drawer
ELCTLT	Electrolitic
ELEC	Electronic
EJCTR	Ejector
EQPT	Equipment
EXH	Exhaust
EXT	External
FSTNR	Fastener
FXD	Fixed
GEN	Generator
HEX	Hexagonal
HF	High Frequency
IDENT	Identification
INSTR	Instructions
INTK	Intake
LIN	Linear
MICROCKT	Microcircuit
MTG	Mount
NTWK	Network
OVRVOLT	Overvoltage
PL	Plate
PRERGLTR	Preregulator
PTD	Printed
RD	Round
RDR	Reader
RES	Resistor
RGLTD	Regulated
RTNR	Retainer

Abbreviations	Explanation
SCND	Semiconductor
SGL	Signal
SKT	Socket
SLFLKG	Self-Locking
SP	Special Purpose
SPRT	Support
SW	Switch
THD	Thread
TOTL	Total
WRG	Wiring
WW	Wirewound

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Section II. BASIC ISSUE ITEMS LIST

NOT APPLICABLE

Section III. ITEMS TROOP INSTALLED OR AUTHORIZED LIST

NOT APPLICABLE

Section IV. REPAIR PARTS LIST

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)		(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE		U/M	QTY INC IN UNIT
							GP 01 - POWER SUPPLY PP-7292/USQ PP-7292A/USQ			
C	C-1		XBFFF		1951-1-4010-1	15942	POWER SUPPLY	Q26	EA	1
C	C-1		PAODD	5865-01-115-9151	5065647-1	57958	POWER SUPPLY	R41	EA	1
C	C-1	1	XDHHH		1951-1-4077-3	15942	COVER,ACCESS		EA	1
	C-1	2	XAFZZ		06-0201-1348	28817	GASKET,ELEK	Q26	EA	2
C	C-1	2A	XDHZZ		0423-1-4001-1	15942	GASKET,ELEK	R41	EA	2
C	C-1	3	XDHZZ		MS20426AD2-5	96906	RIVET		EA	40
C	C-1	4	XDHZZ	5305-01-071-3852	1951-1-3001-1	15942	SCREW		EA	48
	C-1	4A	XDHZZ	5305-01-071-3852	D-791806	30885	SCREW,EXT		EA	48
C	C-1	5	XDHZZ	5310-00-595-6761	MS15795-802	96906	WASHER		EA	48
	C-1	6					NOT USED			
R	C-1	7	PAHZZ	5920-01-120-8641	OVP12-24	15755	MODULE,OVRVOLT		EA	1
C	C-1	8	XDHZZ	5305-01-138-7228	NAS1190E06P5L	80205	SCREW		EA	8
R	C-1	9	PAHZZ	5865-01-140-2728	OVP5-11	15755	MODULE,OVRVOLT		EA	3
C	C-1	10	XDHZZ		06-0302-1887	28817	PANEL,EXH,AIR	Q26	EA	2
	C-1	10A	XDHZZ		0423-1-4061-1	15942	PANEL,EXH,AIR	R41	EA	2
C	C-1	11	XDHZZ	5305-00-372-9985	NAS1189E04P7L	80205	SCREW		EA	28
	C-1	12					NOT USED			
R	C-1	13	PAHZZ	6130-01-084-0996	C15DHY1-2-22-32	15755	POWER SUPPLY		EA	1
C	C-1	14	XDHZZ	5305-	NAS1190E03P5L	80205	SCREW		EA	16
	C-1	15	PAFZZ	5940-00-433-0983	TBS16-8-1	09922	TERMINAL	Q26	EA	9
C	C-1	15A	PADZZ		599-2003-8	75382	TERMINAL BOARD	R41	EA	13
R	C-1	16	PAHZZ	6130-01-082-6807	C5DHY10-22-32	15755	POWER SUPPLY		EA	3
	C-1	17	PAFZZ	5841-00-471-1650	TBS20-8-1	09922	TERMINAL BLOCK	Q26	EA	4
C	C-1	17A	XDHZZ	5305-00-066-7327	MS24693C28	96906	SCREW	R41	EA	26
C	C-1	17B	XDHZZ	5310-00-722-5998	MS15795-805	96906	WASHER	R41	EA	26
C	C-1	17C	XDHZZ	5310-00-929-6395	MS35338-136	96906	WASHER	R41	EA	26
C	C-1	17D	XDHZZ	5310-00-208-3786	NAS671C6	80205	NUT	R41	EA	26
	C-1	18	XBFZZ		1951-1-3054-1	15942	BRACKET,CONN	Q26	EA	1
C	C-1	18A	XDDZZ		5065650-1	57958	BRACKET,ELEK	R41	EA	1
	C-1	19	XBFZZ	5340-00-922-1858	TBC1	09922	CLAMP,ELEK	Q26	EA	2
C	C-1	20	XDHZZ	5305-00-210-5162	NAS1189E04P4L	80205	SCREW		EA	12
	C-1	21					NOT USED			
C	C-1	22	XDHZZ	5305-00-054-5647	MS51957-13	96906	SCREW		EA	9
C	C-1	23	XDHZZ		MS15795-803	96906	WASHER		EA	47
C	C-1	24	XDHZZ	5310-00-933-8118	MS35338-135	96906	WASHER		EA	47

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)		(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE		U/M	QTY INC IN UNIT
C	C-1	25	XDDDD		1951-1-5013-1	15942	HEATSINK	R41	EA	1
C	C-1	25A	XDDZZ		FE632	46384	NUT,SLFLKG,CL		EA	2
C	C-1	26	XDHZZ	5305-01-040-5484	NAS1189E06P5L	80205	SCREW		EA	8
	C-1	27	XBFZZ		1951-1-4286-1	15942	WIRING HARNESS	Q26	EA	1
C	C-1	27A	XDDDD		5065659-1	57958	WIRING HARNESS (SEE FIG 2)	R41	EA	1
C	C-1	28	XDHZZ	9905-01-120-6205	1951-1-2039-1	15942	PLATE,INSTR		EA	1
	C-1	29	PAHZZ	4140-00-034-7482	026981	82877	FAN,TUBEAXIAL		EA	1
C	C-1	30	XDHZZ	5340-00-984-6629	271166	82877	CLAMP,RIM CL		EA	4
C	C-1	31	XDHZZ	5305-00-054-5648	MS51957-14	96906	SCREW		EA	4
	C-1	32	PAHZZ	6645-00-255-1371	MS17322-10	96906	METER		EA	1
C	C-1	32A	XDHZZ	5305-00-225-6400	MS24693C3	96906	SCREW		EA	2
C	C-1	33	XDDDD		1951-1-5000-1	15942	CHASSIS,ELEK		EA	1
C	C-1	34	XA		MK1301-04	15653	NUT,PLAIN,PL		EA	44
C	C-1	35	XA	5320-00-117-6010	MS20426AD2-3	96906	RIVET		EA	96
C	C-1	35A	XDDZZ	5310-00-589-7962	FE440	46384	NUT,SLFLKG,CL		EA	4
C	C-1	35B	XDDZZ	5340-00-759-6438	FE832	46384	NUT,SLFLKG,PL		EA	4
C	C-1	35C	XDDZZ	5310-00-071-0199	LAC440-2	46384	NUT,SLFLKG,CL		EA	4
C	C-1	36	XDHZZ		1951-1-3000-1	15942	PLATE,SUPPORT		EA	1
C	C-1	37	XDHZZ	5305-01-082-5321	NAS1189E06P7L	80205	SCREW		EA	6
	C-1	38					NOT USED			
C	C-1	39	XDHZZ	5305-00-056-9961	MS24693C4	96906	SCREW		EA	24
	C-1	40					NOT USED			
C	C-1	41	XDHZZ		1951-1-3000-2	15942	PLATE,SUPPORT		EA	1
C	C-1	42	XDHZZ		06-0302-1886	28817	PANEL,INTK,AIR	Q26	EA	1
	C-1	42A	XDHZZ		0423-1-4062-1	15942	PANEL,INTK,AIR	R41	EA	1
C	C-1	43	XDHZZ	5305-00-054-5653	MS51957-19	96906	SCREW		EA	4
C	C-1	44	XDHZZ		0423-1-3008-1	15942	SPACER,FAN		EA	1
	C-1	45	PAHZZ	5930-00-308-7402	M24236-1-0525	81349	SWITCH		EA	1
C	C-1	46	XDHZZ	5310-00-208-3786	NAS671C4	80205	NUT,PLAIN,HEX		EA	34
	C-1	47	XDHZZ		1951-1-3053-1	15942	BRACKET,ANGLE		EA	2
	C-1	48					NOT USED			
C	C-1	49	XA		MK2301-04	15653	NUT,SLFLKG,PLATE		EA	4
C	C-1	50	XDHHH		1951-1-4077-4	15942	COVER,ACCESS, BOTTOM		EA	1
C	C-1	51	XDHHH		1951-1-4106-1	15942	PANEL,FRONT		EA	1

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)		(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE		U/M	QTY INC IN UNIT
C	C-1	51A	XDHZZ	5305-00-066-7325	MS24693C5	96906	SCREW		EA	8
	C-1	52	PAHZZ	5935-01-065-6390	MS27508E12F98S	96906	CONNECTOR		EA	1
C	C-1	53	XDHZZ	5940-00-155-7686	MS77066-1	96906	TERMINAL		EA	6
C	C-1	54	XDHZZ	5307-00-431-7448	CFH440-4	46384	STUD,PLAIN,SELF-CLINCH		EA	8
	C-1	55	PAHZZ	5935-01-065-6391	MS27508E22F21S	96906	CONNECTOR		EA	1
R	C-1	56	XDHZZ	5340-01-103-0184	10350SS0832-7	06540	HANDLE,BOW		EA	2
C	C-1	57	XDHZZ	5305-01-055-3758	NAS1189E08P6L	80205	SCREW		EA	4
	C-1	58	PAHZZ	5935-01-065-6392	MS27508E14F15S	96906	CONNECTOR		EA	1
	C-1	59	PAHZZ	5935-01-064-9210	MS27508E16F6P	96906	CONNECTOR		EA	1
	C-1	60	XDHZZ	3460-00-876-2922	HDH4	94867	HOOK,HOLDDOWN		EA	2
C	C-1	61	XDHZZ	5305-00-054-6671	MS51957-46	96906	SCREW		EA	4
C	C-1	62	XDHZZ	5310-00-880-5978	MS15795-807	96906	WASHER		EA	4
C	C-1	63	XDHZZ	5310-01-067-9589	MS35338-137	96906	WASHER		EA	4
	C-1	64	XBFZZ		1951-1-3048-3	15942	PLATE,IDENT	Q26	EA	1
C	C-1	64A	XDHZZ		C5074135-1	57958	PLATE,IDENT	R41	EA	1
C	C-1	65	XDHZZ	5307-00-721-3980	CFHC032-8	46384	STUD,SLFLKG		EA	1
C	C-1	65A	XDHZZ	5940-00-143-4771	MS25036-103	96906	TERMINAL		EA	1
C	C-1	65B	XDHZZ	5940-00-143-4780	MS25036-108	96906	TERMINAL		EA	3
C	C-1	65C	XDHZZ	5310-00-209-1239	MS35335-60	96906	WASHER	R41	EA	3
C	C-1	65D	XDHZZ	5310-00-619-1148	MS15795-808	96906	WASHER		EA	1
C	C-1	65E	XDHZZ	5310	H01-3	15653	NUT,SLFLKG,HEX		EA	1
	C-1	65F	XBFZZ	5310-00-209-1239	MS35335-60	96906	WASHER	Q26	EA	5
	C-1	66	PAHZZ	5935-01-064-7840	MS27508E12F8P	96906	CONNECTOR		EA	1
	C-1	67	PAHZZ	5935-01-065-7472	MS27508E20F16P	96906	CONNECTOR		EA	1
N	C-1	68					DELETED			
C	C-1	69					DELETED			
N	C-1	70	XDHZZ	5330-01-016-9394	R-10460-3/16-THK	71643	RUBBER SHEET		EA	1
N	C-1	71					DELETED			
N	C-1	72					DELETED			
N	C-1	73	XDHZZ	9905-01-159-6447	TMS-CM-1/2-4H-9	06090	BAND MARKER		EA	1
C	C-1	74					DELETED			
N	C-1	75	XBHZZ	5325-00-074-3301	MS21266-2N	96906	GROMMET		EA	1
N	C-1	76	XDHZZ	5330-01-033-0334	97-555CDC	30817	GASKET,SHIELDING		EA	1
N	C-1	77					DELETED			
N	C-1	78	XDHZZ		R-10460-1/8THK	71643	RUBBER SHEET		EA	1

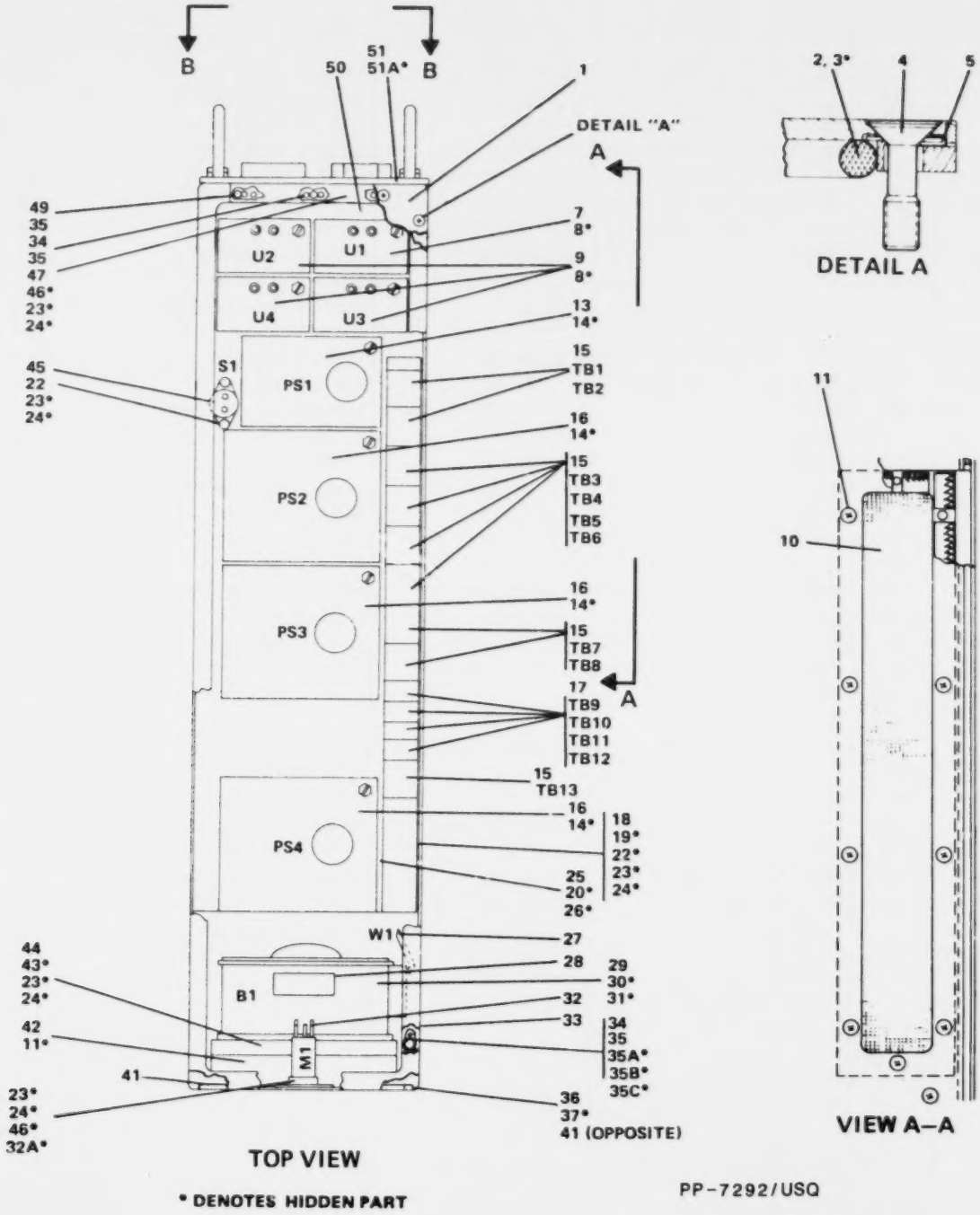


Figure C-1. Power Supply PP-7292/USQ and PP-7292A/USQ (Sheet 1 of 3)

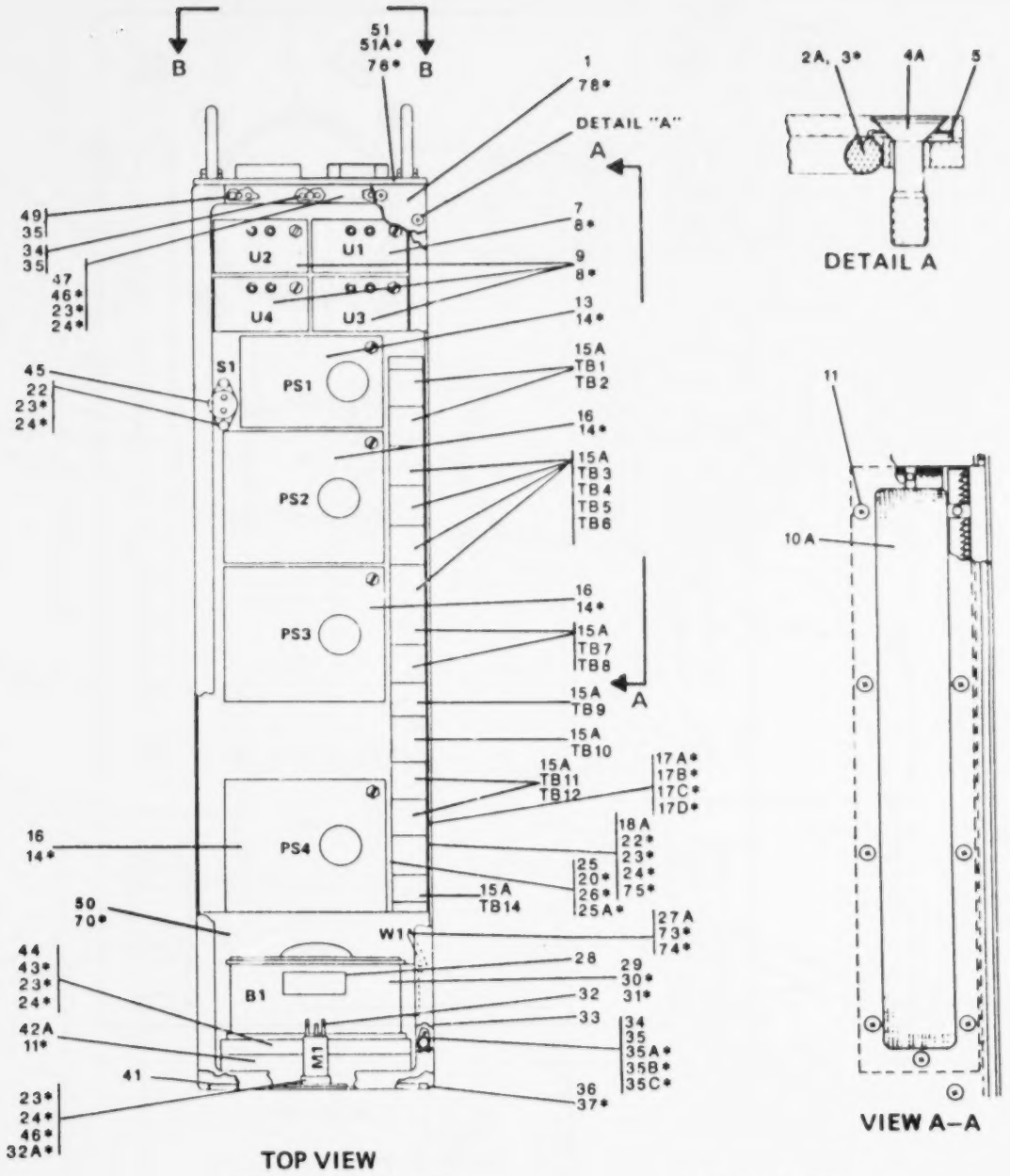


Figure C-1. Power Supply PP-7292/USQ and PP-7292A/USQ (Sheet 2 of 3)

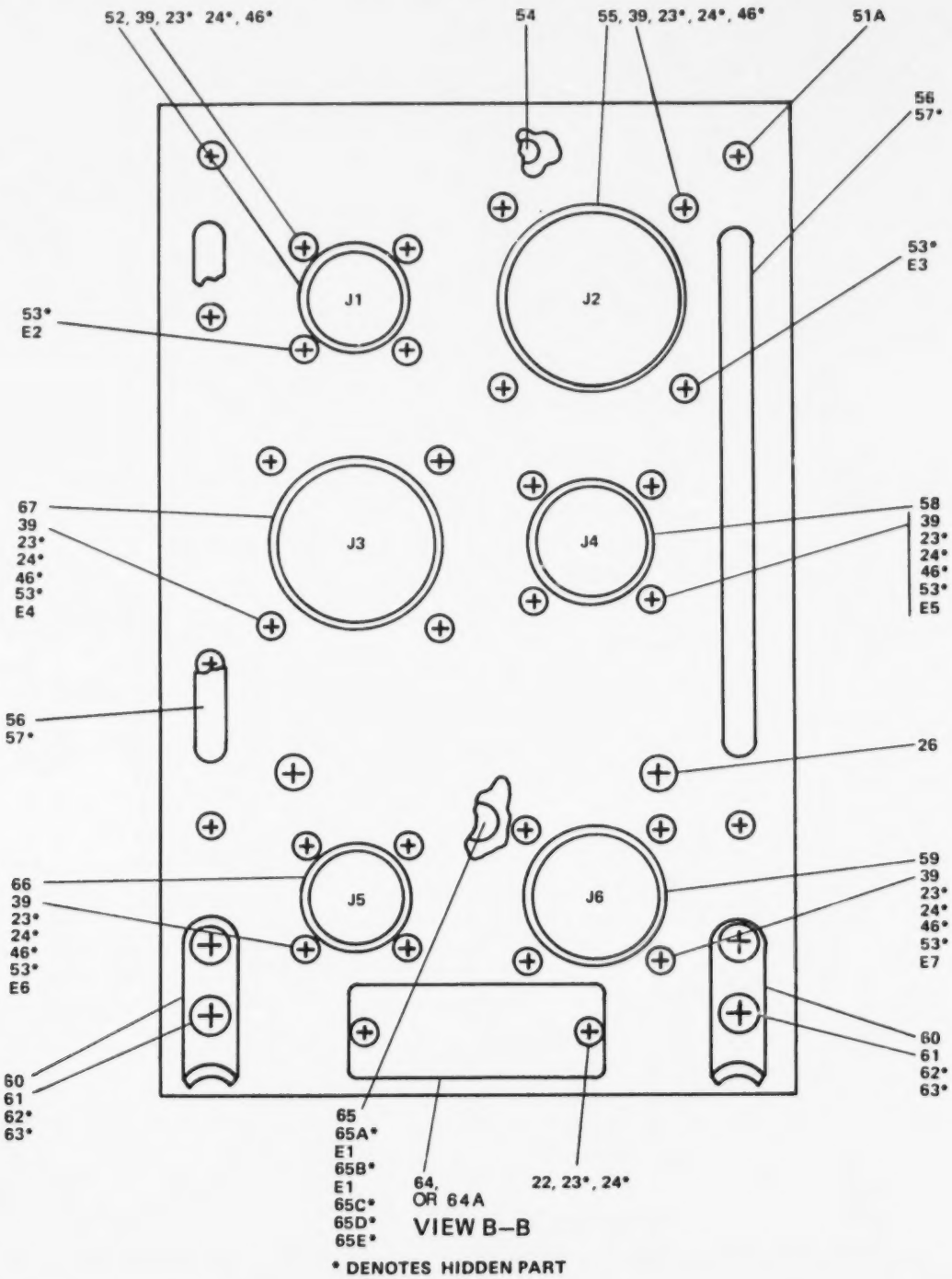


Figure C-1. Power Supply PP-7292/USQ and PP-7292A/USQ (Sheet 3 of 3)

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)	(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
							GP 0101 - BRANCHED WIRING HARNESS W1 5065659-1		
N	C-2	1	PAHZZ		MS27508E12F8P	96906	CONN,RCPT,ELEC	EA	1
N	C-2	2	XDHZZ		MS25036-103	96906	TERMINAL,LUG	EA	1
N	C-2	3	PAHZZ		MS27508E16F6P	96906	CONN,RCPT,ELEC	EA	1
N	C-2	4	XDHZZ		MS25036-108	96906	TERMINAL,LUG	EA	3
N	C-2	5	PAHZZ		MS27508E14F15S	96906	CONN,RCPT,ELEC	EA	1
N	C-2	6	XDHZZ		TMS-CM-1/2-4H-9	06090	BAND,MARKER	EA	1
N	C-2	7	XDHZZ		MS3367-1-9	96906	STRAP,TIEDOWN,ELEC CMPNT	EA	3
N	C-2	8	XDHZZ		MS77066-1	96906	TERMINAL,LUG	EA	6
N	C-2	9	PAHZZ		MS27508E22F21S	96906	CONN,RCPT,ELEC	EA	1
N	C-2	10	XDHZZ		C5074678	57958	PLATE,FRONT	EA	1
N	C-2	11	PAHZZ		MS27508E12F98S	96906	CONN,RCPT,ELEC	EA	1
N	C-2	12	PAHZZ		MS27508E20F16P	96906	CONN,RCPT,ELEC	EA	1

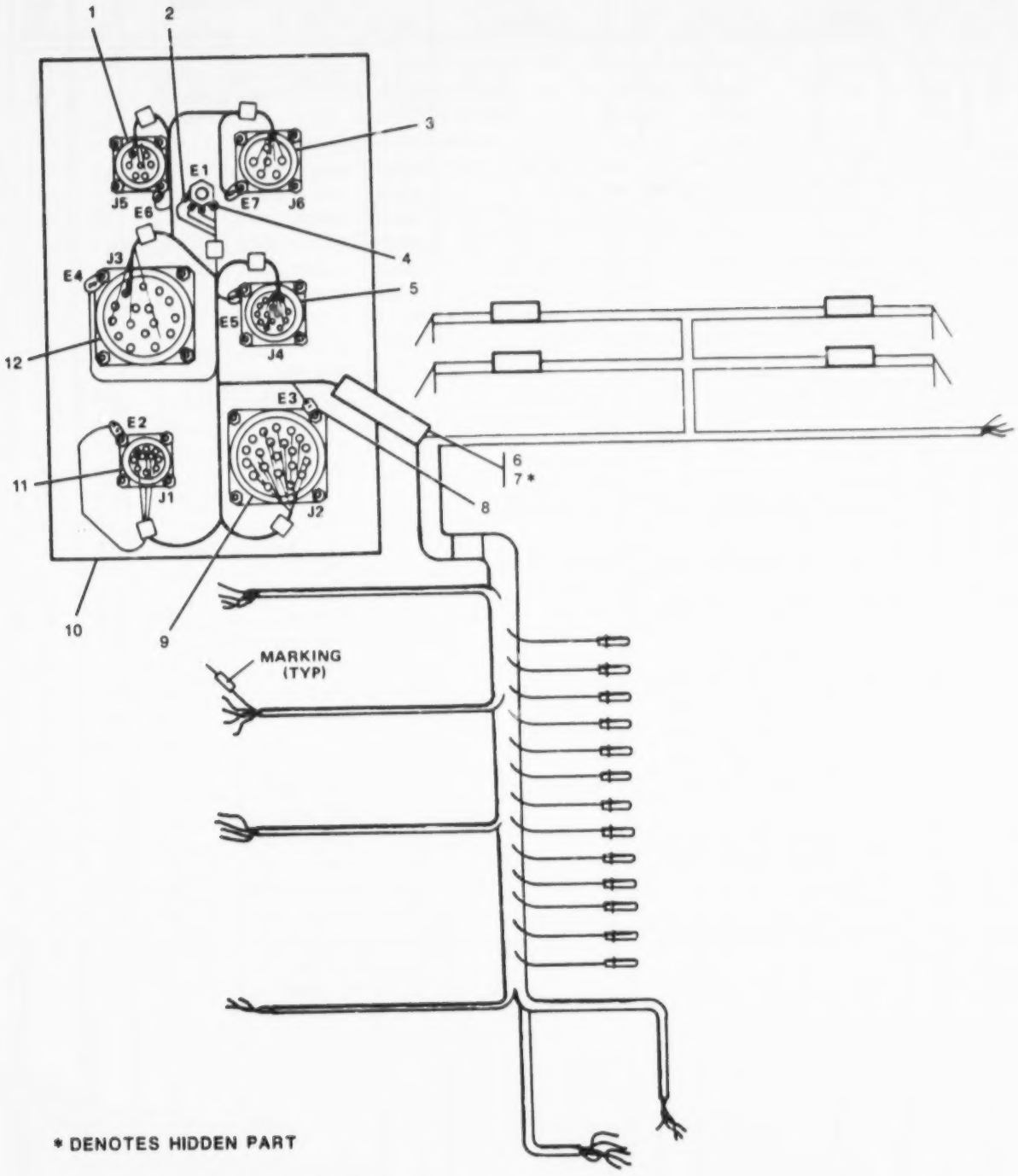
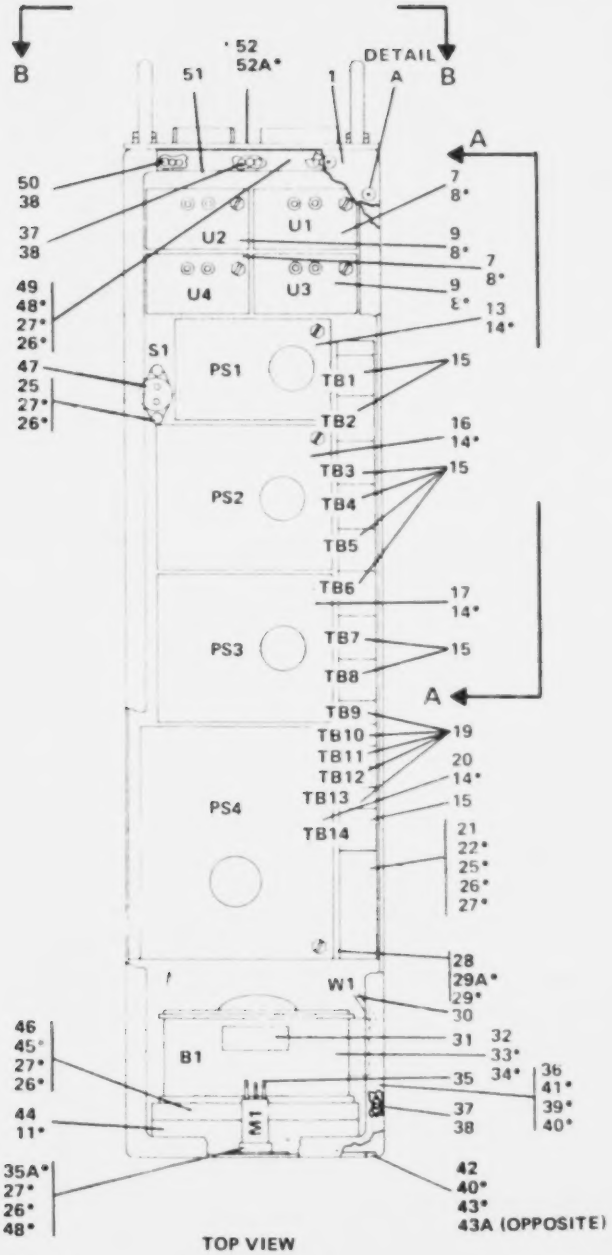


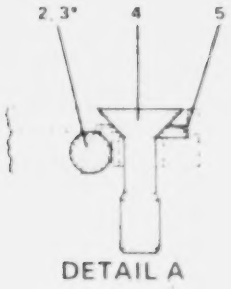
Figure C-2. Branched Wiring Harness W1

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)		(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION	USABLE ON CODE	U/M	QTY INC IN UNIT
							GP 02 - POWER SUPPLY PP-7293/USQ PP-7293A/USQ			
C	C-3		XBFFD		1951-1-4011-1	15942	POWER SUPPLY	Q30	EA	1
C	C-3		PAODD	5865-01-115-9152	5065648-1	57958	POWER SUPPLY	R42	EA	1
	C-3	1	XDHHH		1951-1-4077-3	15942	COVER,ACCESS		EA	1
C	C-3	2	XAFZZ		06-0201-1348	28817	GASKET,ELEK	Q30	EA	1
C	C-3	2A	XDHZZ		0423-1-4001-1	15942	GASKET,ELEK	R42	EA	2
C	C-3	3	XDHZZ		MS20426AD2-5	96906	RIVET		EA	40
C	C-3	4	XDHZZ	5305-01-071-3852	1951-1-3001-1	15942	SCREW		EA	48
	C-3	5	XDHZZ	5310-00-595-6761	MS15795-802	96906	WASHER		EA	48
	C-3	6					NOT USED			
C	C-3	7	PAHZZ	6110-00-489-3813	OVP26-50	15755	PROTECTOR,OVRVOLT		EA	2
	C-3	8	XDHZZ	5305-01-138-7228	NAS1190E06P5L	80205	SCREW		EA	8
C	C-3	9	PAHZZ	5865-01-140-2728	OVP5-11	15755	MODULE,OVRVOLT		EA	2
	C-3	10	XDHZZ		06-0302-1887	28817	PANEL,EXH,AIR	Q30	EA	2
C	C-3	10A	XDHZZ		0423-1-4061-1	15942	PANEL,EXH,AIR	R42	EA	2
C	C-3	11	XDHZZ	5305-00-372-9985	NAS1189E04P7L	80205	SCREW		EA	28
R	C-3	12					NOT USED		EA	1
C	C-3	13	PAHZZ	6130-01-084-3705	C36DHY0-6-22-32	15755	POWER SUPPLY		EA	1
	C-3	14	XDHZZ		NAS1190E03P5L	80205	SCREW		EA	16
C	C-3	15	PAFZZ	5940-00-433-0983	TBS16-8-1	09922	TERMINAL	Q30	EA	9
C	C-3	15A	XDHZZ		599-2003-8	75382	TERMINAL BOARD	R42	EA	14
	C-3	15B	XDHZZ	5305-00-066-7327	MS24693C28	96906	SCREW	R42	EA	28
	C-3	15C	XDHZZ	5310-00-722-5998	MS15795-805	96906	WASHER	R42	EA	28
C	C-3	15D	XDHZZ	5310-00-929-6395	MS35338-136	96906	WASHER	R42	EA	28
R	C-3	15E	XDHZZ	5310-00-208-3786	NAS671C6	80203	NUT	R42	EA	28
R	C-3	16	PAHZZ	6130-01-082-7819	C10DHY7-5-22-32	15755	POWER SUPPLY		EA	1
	C-3	17	PAHZZ	6130-01-082-6807	C5DHY10-22-32	15755	POWER SUPPLY		EA	1
	C-3	18					NOT USED			
R	C-3	19	PAFZZ	5841-00-471-1650	TBS20-8-1	09922	TERMINAL BLOCK	Q30	EA	5
	C-3	20	PAHZZ	6130-01-082-6808	CC15DHY3-5-22-32	15755	POWER SUPPLY		EA	1
	C-3	21	XBFZZ		1951-1-3054-1	15942	BRACKET,CONN	Q30	EA	1
	C-3	21A	XDHZZ		5065650-1	57958	BRACKET,ELEK	R42	EA	1
	C-3	22	XBFZZ	5340-00-922-1858	TBC1	09922	CLAMP,ELEK	Q30	EA	2
	C-3	23					NOT USED			
	C-3	24					NOT USED			

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)	(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
C	C-3	25	XDHZZ	5305-00-054-5647	MS51957-13	96906	SCREW	EA	9
C	C-3	26	XDHZZ	5310-00-933-8118	MS35338-135	96906	WASHER	EA	51
C	C-3	27	XDHZZ		MS15795-803	96906	WASHER	EA	51
C	C-3	27A	XDHZZ	5305-00-056-9961	MS24693C4	96906	SCREW	EA	28
C	C-3	28	XDDDD		1951-1-5013-1	15942	HEATSINK	EA	1
C	C-3	28A	XDDZZ		FE632	46384	NUT,SLFLKG,CL R42	EA	2
C	C-3	29	XDHZZ	5305-01-040-5484	NAS1189E06P5L	80205	SCREW	EA	8
C	C-3	29A	XDHZZ	5305-00-210-5162	NAS1189E04P4L	80205	SCREW	EA	12
	C-3	30	XBFZZ		1951-1-4287-1	15942	WIRING HARNESS,BR Q30	EA	1
C	C-3	30A	XDDDD		5065660-1	57958	WIRING HARNESS,BR R42 (SEE FIG 4)	EA	1
C	C-3	31	XDHZZ	9905-01-120-6205	1951-1-2039-1	15942	PLATE,INSTR	EA	1
C	C-3	32	PAHZZ	4140-00-034-7482	026981	82877	FAN,TUBEAXIAL	EA	1
C	C-3	33	XDHZZ	5340-00-984-6629	271166	82877	CLAMP,RIM CL	EA	4
C	C-3	34	XDHZZ	5305-00-054-5648	MS51957-14	96906	SCREW	EA	4
	C-3	35	PAHZZ	6645-00-255-1371	MS17322-10	96906	METER	EA	1
C	C-3	35A	XDHZZ	5305-00-225-6400	MS24693C3	96906	SCREW	EA	2
C	C-3	36	XDDDD		1951-1-5000-1	15942	CHASSIS,ELEK	EA	1
C	C-3	37	XDHZZ	5310-00-073-9190	MK1301-04	15653	NUT,PLAIN,PL	EA	44
C	C-3	38	XDHZZ	5320-00-117-6010	MS20426AD2-3	96906	RIVET	EA	96
C	C-3	39	XDDZZ	5310-00-589-7962	FE440	46384	NUT,SLFLKG,CL	EA	4
C	C-3	40	XDDZZ	5340-00-759-6438	FE832	46384	NUT,SLFLKG,PL	EA	4
C	C-3	41	XDDZZ	5310-00-071-0199	LAC440-2	46384	NUT,SLFLKG,CL	EA	4
C	C-3	42	XDDZZ		1951-1-3000-1	15942	PLATE,SUPPORT	EA	1
C	C-3	43	XDDZZ	5305-01-082-5321	NAS1189E06P7L	80205	SCREW	EA	6
C	C-3	43A	XDDZZ		1951-1-3000-2	15942	PLATE,SUPPORT	EA	1
C	C-3	44	XDHZZ		06-0302-1886	28817	PANEL,INTK,AIR Q30	EA	1
	C-3	44A	XDHZZ		0423-1-4062-1	15942	PANEL,INTK,AIR R42	EA	1
C	C-3	45	XDHZZ	5305-00-054-5653	MS51957-19	96906	SCREW	EA	4
	C-3	46	XDHZZ		0423-1-3008-1	15942	SPACER,FAN	EA	1
	C-3	47	PAHZZ	5930-00-308-7402	M24236-1-0525	81349	SWITCH	EA	1
C	C-3	48	XDHZZ	5310-00-208-3786	NAS671C4	80205	NUT,PLAIN,HEX	EA	38
	C-3	49	XDHZZ		1951-1-3053-1	15942	BRACKET,ANGLE	EA	2
C	C-3	50	XDHZZ		MK2301-04	15653	NUT,SELF-LOCKING	EA	4
	C-3	51	XDHZZ		1951-1-4077-2	15942	COVER,ACCESS Q30	EA	1
N	C-3	51A	XDHHH		1951-1-4077-4	15942	COVER,ACCESS R42	EA	1

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)		(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE		U/M	QTY INC IN UNIT
C	C-3	52	XDHHH		1951-1-4108-1	15942	PANEL,FRONT		EA	1
C	C-3	52A	XDHZZ	5305-00-066-7325	MS24693C5	96906	SCREW		EA	8
	C-3	53	PAHZZ	5935-01-065-6004	MS27508E20F16SA	96906	CONNECTOR		EA	1
C	C-3	54	XDHZZ	5940-00-155-7686	MS77066-1	96906	TERMINAL		EA	7
C	C-3	55	XDHZZ	5307-00-431-7448	CFHC440-4	46384	STUD,SELF-CLINCH		EA	8
	C-3	56	PAHZZ	5935-01-066-1945	MS27508E16F26S	96906	CONNECTOR		EA	1
R	C-3	57	XDHZZ	5340-01-103-0189	10350SS0832-7	06540	HANDLE,BOW		EA	2
C	C-3	58	XDHZZ	5305-01-055-3758	NAS1189E08P6L	80205	SCREW		EA	4
C	C-3	59	PAHZZ	5935-01-065-7470	MS27508E20F16S	96906	CONNECTOR		EA	1
	C-3	60	PAHZZ	5935-01-065-6394	MS27508E14F15SA	96906	CONNECTOR		EA	1
	C-3	61	PAHZZ	5935-01-066-1946	MS27508E16F6PA	96906	CONNECTOR		EA	1
	C-3	62	XDHZZ	3460-00-876-2922	HDH4	94867	HOOK,HOLDDOWN		EA	2
C	C-3	63	XDHZZ	5305-00-054-6671	MS51957-46	96906	SCREW		EA	4
C	C-3	64	XDHZZ	5310-00-880-5978	MS15795-807	96906	WASHER		EA	4
C	C-3	65	XDHZZ	5310-01-067-9589	MS35338-137	96906	WASHER		EA	4
	C-3	66	XBHZZ		1951-1-3048-4	15942	PLATE,IDENT	Q30	EA	1
C	C-3	66A	XDAZZ		C5074135-2	57958	PLATE,IDENT	R42	EA	1
C	C-3	67	XDHZZ	5307-00-721-3980	CFHC032-8	46384	STUD,SLFLKG		EA	1
C	C-3	67A	XDHZZ	5940-00-143-4771	MS25036-103	96906	TERMINAL		EA	1
C	C-3	67B	XDHZZ	5940-00-143-4780	MS25036-108	96906	TERMINAL		EA	2
C	C-3	67C	XDHZZ	5310-00-209-1239	MS35335-60	96906	WASHER		EA	4
C	C-3	67D	XDHZZ	5310-00-619-1148	MS15795-808	96906	WASHER		EA	1
C	C-3	67E	XDHZZ	5310	H01-3	15653	NUT,SLFLKG,HEX		EA	1
	C-3	68	PAHZZ	5935-01-065-6395	MS27508E12F8PA	96906	CONNECTOR		EA	1
	C-3	69	PAHZZ	5935-01-065-6393	MS27508E20F16SB	96906	CONNECTOR		EA	1
N	C-3	70					NOT USED			
N	C-3	71					DELETED			
N	C-3	72					NOT USED			
N	C-3	73					DELETED			
N	C-3	74	XDHZZ	5330-01-016-9394	R-10460-3/16THK	71643	RUBBER SHEET		EA	2
N	C-3	75					DELETED			
N	C-3	76					DELETED			
N	C-3	77					DELETED			
N	C-3	78					DELETED			
N	C-3	79	XDHZZ	5325-00-074-3301	MS21266-2N	96906	GROMMET		EA	1
N	C-3	80	XDHZZ	5330-01-033-0334	97-555-CDC	30817	GASKET,ELEK		EA	1





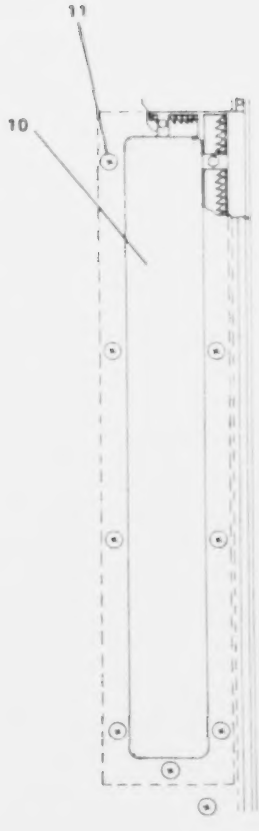


Figure C-3. Power Supply PP-7293/USQ and PP-7293A/USQ (Sheet 1 of 3)

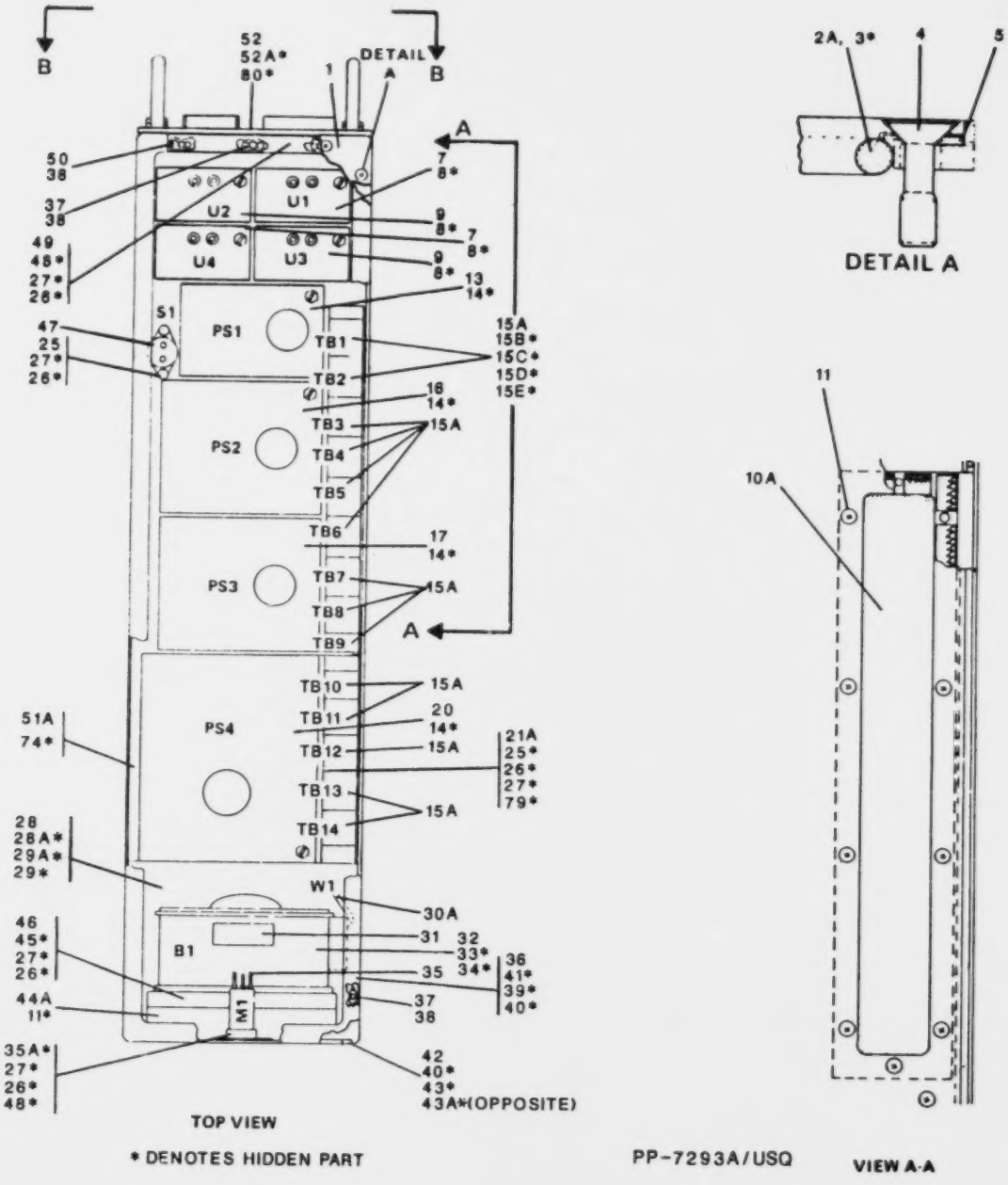


Figure C-3. Power Supply PP-7293/USQ and PP-7293A/USQ (Sheet 2 of 3)

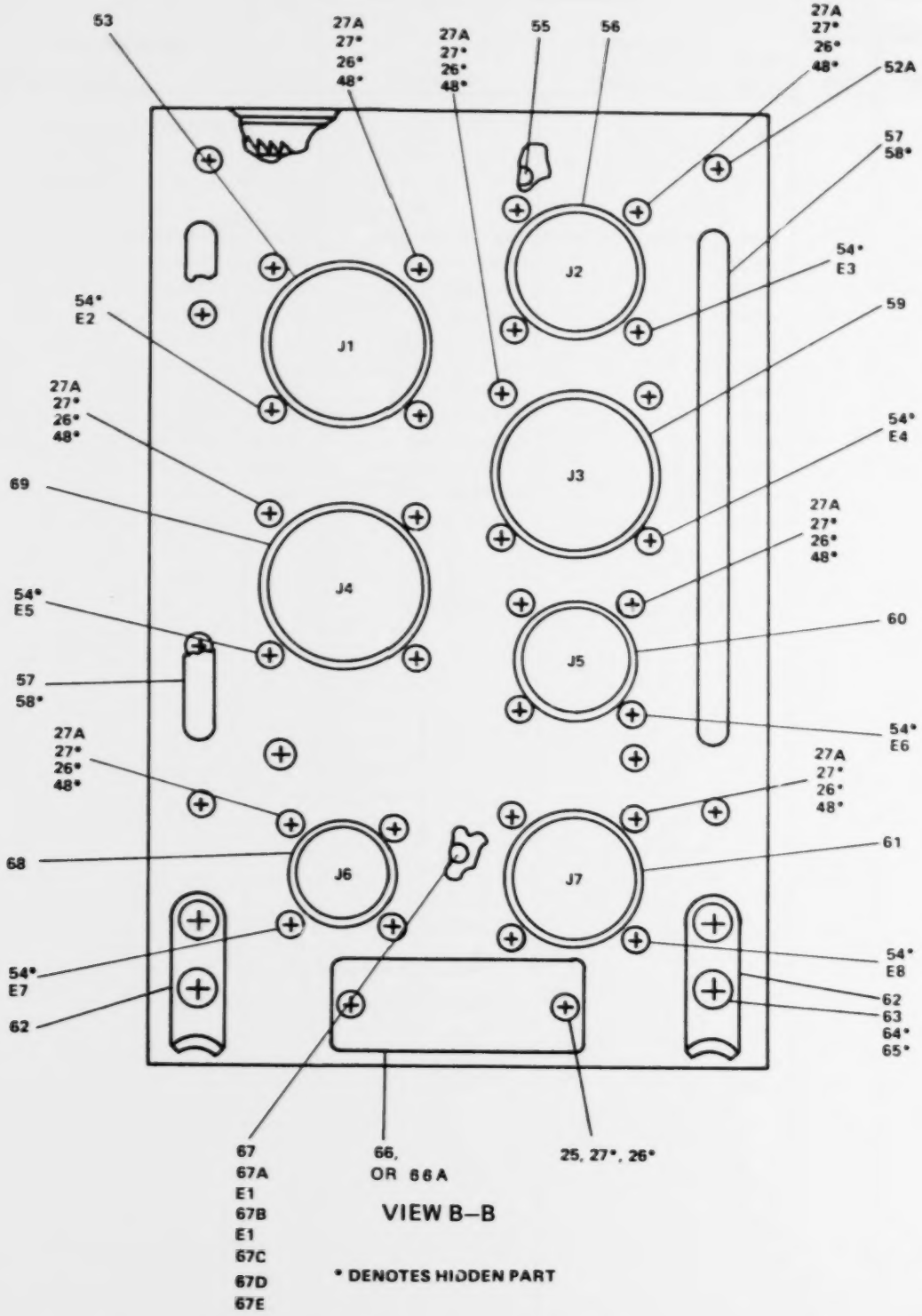


Figure C-3. Power Supply PP-7293/USQ and PP-7293A/USQ (Sheet 3 of 3)

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)	(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
							GP 0201 - BRANCHED WIRING HARNESS W1 5065660-1		
N	C-4	1	XDHZZ	9905-01-159-6447	TMS-CM-1/2-4H9	06090	BAND,MARKER	EA	1
N	C-4	2	XDHZZ		MS3367-1-9	96906	STRAP,TIEDOWN,ELEC	EA	3
N	C-4	3	PAHZZ		MS27508E16F26S	96906	CONN,RCPT,ELEC	EA	1
N	C-4	4	XDHZZ		MS77066-1	96906	TERMINAL,LUG	EA	7
N	C-4	5	PAHZZ		MS27508E20F16SA	96906	CONN,RCPT,ELEC	EA	1
N	C-4	6	PAHZZ		MS27508E20F16SB	96906	CONN,RCPT,ELEC	EA	1
N	C-4	7	PAHZZ		MS27508E12F8PA	96906	CONN,RCPT,ELEC	EA	1
N	C-4	8	XDHZZ		MS25036-103	96906	TERMINAL,LUG	EA	1
N	C-4	9	XDHZZ		MS25036-108	96906	TERMINAL,LUG	EA	2
N	C-4	10	PAHZZ		MS27508E16F6PA	96906	CONN,RCPT,ELEC	EA	1
N	C-4	11	PAHZZ		MS27508E14F15SA	96906	CONN,RCPT,ELEC	EA	1
N	C-4	12	PAHZZ		MS27508E20F16S	96906	CONN,RCPT,ELEC	EA	1

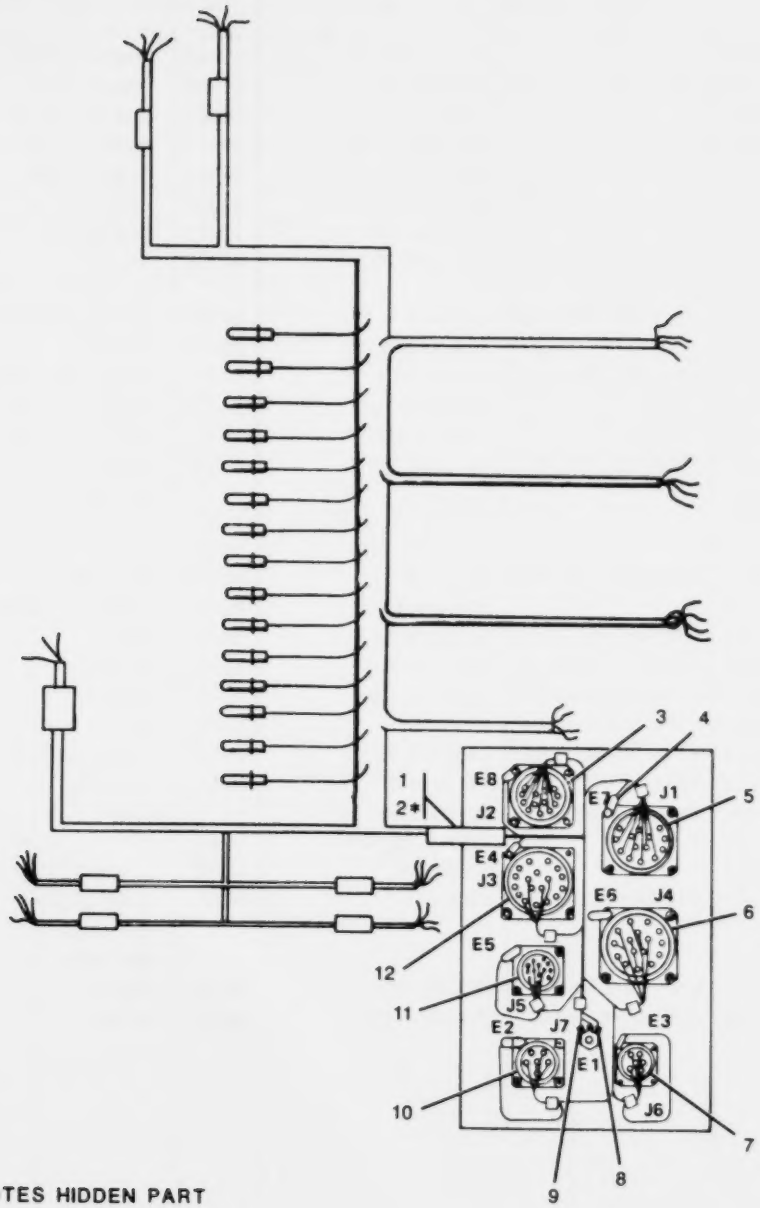


Figure C-4. Branched Wiring Harness W1

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)		(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION	USABLE ON CODE	U/M	QTY INC IN UNIT
							GP 03 - POWER SUPPLY PP-7294/USQ PP-7294A/USQ			
C	C-5		XBFFF		1951-1-4012-1	15942	POWER SUPPLY	Q20	EA	1
C	C-5		PAODD	5865-01-115-9153	5065649-1	57958	POWER SUPPLY	R44	EA	1
C	C-5	1	XDHHH		1951-1-4077-3	15942	COVER,ACCESS		EA	1
	C-5	2	XAFZZ		06-0201-1348	28817	GASKET,ELEK	Q20	EA	2
C	C-5	2A	XDHZZ		0423-1-4001-1	15942	GASKET,ELEK	R44	EA	2
C	C-5	3	XDHZZ		MS20426AD2-5	96906	RIVET		EA	40
C	C-5	4	XDHZZ	5305-01-071-3852	1951-1-3001-1	15942	SCREW,EXT		EA	48
C	C-5	5	XDHZZ	5310-00-595-6761	MS15795-802	96906	WASHER		EA	48
	C-5	6					NOT USED			
	C-5	7	PAHZZ	5821-00-140-2728	OVP5-11	15755	MODULE,OVRVOLT		EA	3
C	C-5	8	XDHZZ	5305-01-138-7228	NAS1190E06P5L	80205	SCREW		EA	8
	C-5	9	PAHZZ	6110-00-489-3813	OVP26-50	15755	PROTECTOR,OVRVOLT		EA	1
	C-5	10	XBFZZ		06-0302-1887	28817	PANEL,EXH,AIR	Q20	EA	2
C	C-5	10A	XDHZZ		0423-1-4061-1	15942	PANEL,EXH,AIR	R44	EA	2
C	C-5	11	XDHZZ	5305-00-372-9985	NAS1189E04P7L	80205	SCREW		EA	28
	C-5	12					NOT USED			
C	C-5	13	PAHDD		C10DHY1-8-22-32	15755	POWER SUPPLY		EA	1
C	C-5	14	XDHZZ		NAS1190E03P5L	80205	SCREW		EA	16
	C-5	15	PAFZZ	5940-00-433-0983	TBS16-8-1	09922	TERMINAL	Q20	EA	9
C	C-5	15A	XDDZZ		599-2003-8	75382	TERMINAL BOARD	R44	EA	12
C	C-5	15B	XDDZZ	5305-00-066-7327	MS24693C28	96906	SCREW	R44	EA	24
C	C-5	15C	XDDZZ	5310-00-722-5998	MS15795-805	96906	WASHER	R44	EA	24
C	C-5	15D	XDDZZ	5310-00-929-6395	MS35338-136	96906	WASHER	R44	EA	24
C	C-5	15E	XDDZZ	5310-00-208-3786	NAS671C6	80205	NUT	R44	EA	24
C	C-5	16	PAHDZ	6130-01-082-6807	C5DHY10-22-32	15755	POWER SUPPLY		EA	2
	C-5	17	PAFZZ	5841-00-471-1650	TBS20-8-1	09922	TERMINAL BLOCK	Q20	EA	3
C	C-5	18	PAHDD	6130-01-082-6808	CC15DHY3-5-22-32	15755	POWER SUPPLY,DUAL		EA	1
	C-5	19	XBFZZ		1951-1-3054-1	15942	BRACKET,CONN	Q20	EA	1
	C-5	19A	XDHZZ		5065650-1	57958	BRACKET,CONN	R44	EA	1
	C-5	20	XBFZZ	5340-00-922-1858	TBC1	09922	CLAMP,ELEK	Q20	EA	2
	C-5	21					NOT USED			
	C-5	22					NOT USED			
C	C-5	23	XDHZZ	5305-00-054-5647	MS51957-13	96906	SCREW		EA	9
C	C-5	24	XDHZZ	5310-00-595-6211	MS15795-803	96906	WASHER		EA	39

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)	(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
C	C-5	25	XDHZZ	5310-00-933-8118	MS35338-135	96906	WASHER,LOCK	EA	39
C	C-5	26	XDDDD		1951-1-5013-1	15942	HEATSINK	EA	1
C	C-5	27	XDHZZ	5305-00-210-5162	NAS1189E04P4L	80205	SCREW	EA	12
C	C-5	27A	XDHZZ	5305-01-040-5484	NAS1189E06P5L	80205	SCREW	EA	8
C	C-5	27B	XDDZZ		FE632	46384	NUT,SLFLKG,CL	EA	2
	C-5	28	XBFZZ		1951-1-4288-1	15942	WIRING HARNESS Q20	EA	1
C	C-5	28A	XDDDD		5065661-1	57958	WIRING HARNESS R44 (SEE FIG 6)	EA	1
	C-5	29	XDHZZ	9905-01-120-6205	1951-1-2039-1	15942	PLATE,INSTR	EA	1
C	C-5	30	PAHZZ	4140-00-034-7482	026981	82877	FAN,TUBEAXIAL	EA	1
	C-5	31	XDHZZ	5340-00-984-6629	271166	82877	CLAMP,RIM CL	EA	4
C	C-5	32	XDHZZ	5305-00-054-5648	MS51957-14	96906	SCREW	EA	4
C	C-5	33	PAHZZ	6645-00-255-1371	MS17322-10	96906	METER	EA	1
	C-5	33A	XDHZZ	5305-00-225-6400	MS24693C3	96906	SCREW	EA	2
C	C-5	34	XDDDD		1951-1-5000-1	15942	CHASSIS,ELEK	EA	1
C	C-5	34A	XDDZZ	5310-00-589-7962	FE440	46384	NUT,SLFLKG,CL	EA	4
C	C-5	34B	XDDZZ	5340-00-759-6438	FE832	46384	NUT,SLFLKG,PL	EA	4
C	C-5	34C	XDDZZ	5310-00-071-0199	LAC440-2	46384	NUT,SLFLKG,CL	EA	4
C	C-5	35	XDHZZ	5310-00-073-9190	MK1301-04	15653	NUT,PLAIN,PL	EA	44
C	C-5	36	XDHZZ	5320-00-117-6010	MS20426AD2-3	96906	RIVET	EA	96
C	C-5	37	XDHZZ		1951-1-3000-1	15942	PLATE,SUPPORT	EA	1
C	C-5	37A	XDHZZ	5305-01-082-5321	NAS1189E06P7L	80205	SCREW	EA	6
C	C-5	37B	XDHZZ		1951-1-3000-2	15942	PLATE,SUPPORT	EA	1
C	C-5	38					NOT USED		
	C-5	39					NOT USED		
C	C-5	40	XDHZZ	5305-00-066-7325	MS24693C5	96906	SCREW	EA	8
	C-5	41					NOT USED		
	C-5	42	XBFZZ		06-0302-1886	28817	PANEL,INTK,AIR Q20	EA	1
C	C-5	42A	XDHZZ		0423-1-4061-2	15942	PANEL,INTK,AIR R44	EA	1
C	C-5	43	XDHZZ	5305-00-054-5653	MS51957-19	96906	SCREW	EA	4
	C-5	44	XDHZZ		0423-1-3008-1	15942	SPACER,FAN	EA	1
	C-5	45	PAHZZ	5930-00-308-7402	M24236-1-0525	81349	SWITCH	EA	1
C	C-5	46	XDHZZ	5310-00-208-3786	NAS671C4	80205	NUT,PLAIN,HEX	EA	26
C	C-5	47	XDHHH		1951-1-3053-1	15942	BRACKET,ANGLE	EA	2
C	C-5	48					DELETED		

	(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)	(7)	(8)
	FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
C	C-5	49					NOT USED		
C	C-5	50	XDHZZ		MK2301-04	15653	NUT,SELF-LOCKING	EA	4
C	C-5	51	XDHHH		1951-1-4077-4	15942	COVER,ACCESS, BOTTOM	EA	1
	C-5	52	XDHHH		1951-1-4109-1	15942	PANEL ASSY,FRONT	EA	1
C	C-5	53	PAHZZ	5935-01-065-6396	MS27508E22F21SA	96906	CONNECTOR	EA	1
C	C-5	53A	XDHZZ	5305-00-056-9961	MS24693C4	96906	SCREW	EA	16
C	C-5	54	XDHZZ	5940-00-155-7686	MS77066-1	96906	TERMINAL	EA	4
R	C-5	55	XDHZZ	5307-00-431-7448	CFHC440-4	46384	STUD,SELF-CLINCH	EA	8
C	C-5	56	PAHZZ		MS27508E14F15SB	96906	CONNECTOR	EA	1
C	C-5	57	PAHZZ	5340-01-103-0189	10350SS0832-7	06540	HANDLE,BOW	EA	2
	C-5	58	XDHZZ	5305-01-055-3758	NAS1189E08P6L	80205	SCREW	EA	4
C	C-5	59	PAHZZ	5935-01-066-1947	MS27508E16F6PB	96906	CONNECTOR	EA	1
C	C-5	60	PAHZZ	3460-00-876-2922	HDH4	94867	HOOK,HOLDDOWN	EA	2
C	C-5	61	XDDZZ	5305-00-054-6671	MS51957-46	96906	SCREW	EA	4
C	C-5	62	XDHZZ	5310-00-880-5978	MS15795-807	96906	WASHER	EA	4
	C-5	63	XDHZZ	5310-01-067-9588	MS35338-137	96906	WASHER	EA	4
C	C-5	64	XBFZZ		1951-1-3048-5	15942	PLATE,IDENT Q20	EA	1
C	C-5	64A	XDHZZ		C5074135-3	57958	PLATE,IDENT R44	EA	1
C	C-5	65	XDHZZ	5307-00-721-3980	CFHC032-8	46384	STUD,SLFLKG	EA	1
C	C-5	65A	XDHZZ	5940-00-143-4780	MS25036-108	96906	TERMINAL	EA	3
C	C-5	65B	XDHZZ	5310	H01-3	15653	NUT,SLFLKG,HEX	EA	1
C	C-5	65C	XDHZZ	5310-00-209-1239	MS35335-60	96906	WASHER	EA	4
C	C-5	65D	XDHZZ	5310-00-619-1148	MS15795-808	96906	WASHER	EA	1
N	C-5	66	PAHZZ	5935-01-065-6398	MS27508E12F8PB	96906	CONNECTOR	EA	1
N	C-5	67					DELETED		
N	C-5	68					DELETED		
N	C-5	69					DELETED		
N	C-5	70	XDHZZ		R-10460-1/8THK	71643	RUBBER SHEET	FT	1
N	C-5	71	XDHZZ	5325-00-074-3301	MS21266-2N	96906	GROMMET	EA	1
	C-5	72	XDHZZ	5330-01-033-0334	97-555-CDC	30817	GASKET,ELEK	EA	1

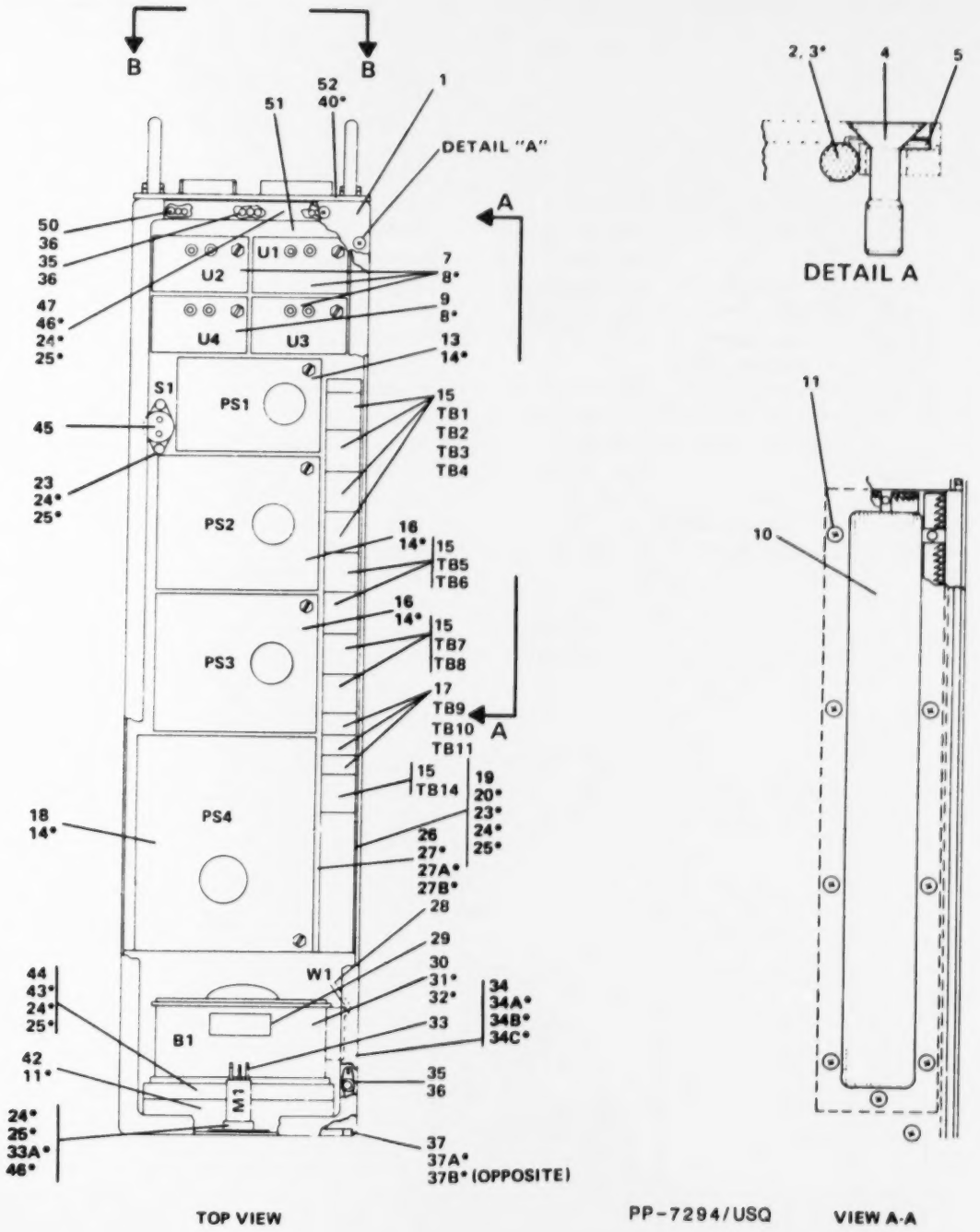


Figure C-5. Power Supply PP-7294/USQ and PP-7294A/USQ (Sheet 1 of 3)

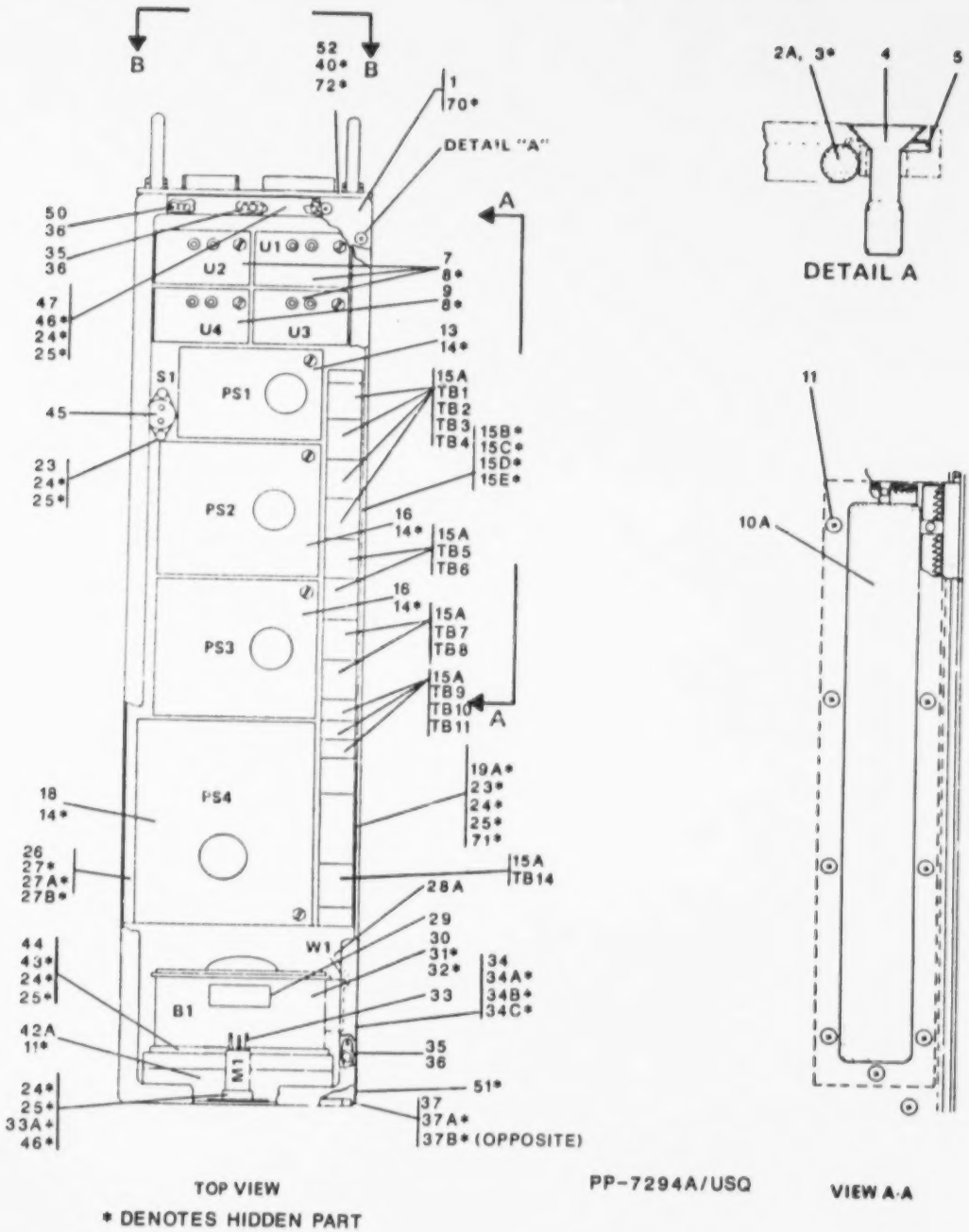


Figure C-5. Power Supply PP-7294/USQ and PP-7294A/USQ (Sheet 2 of 3)

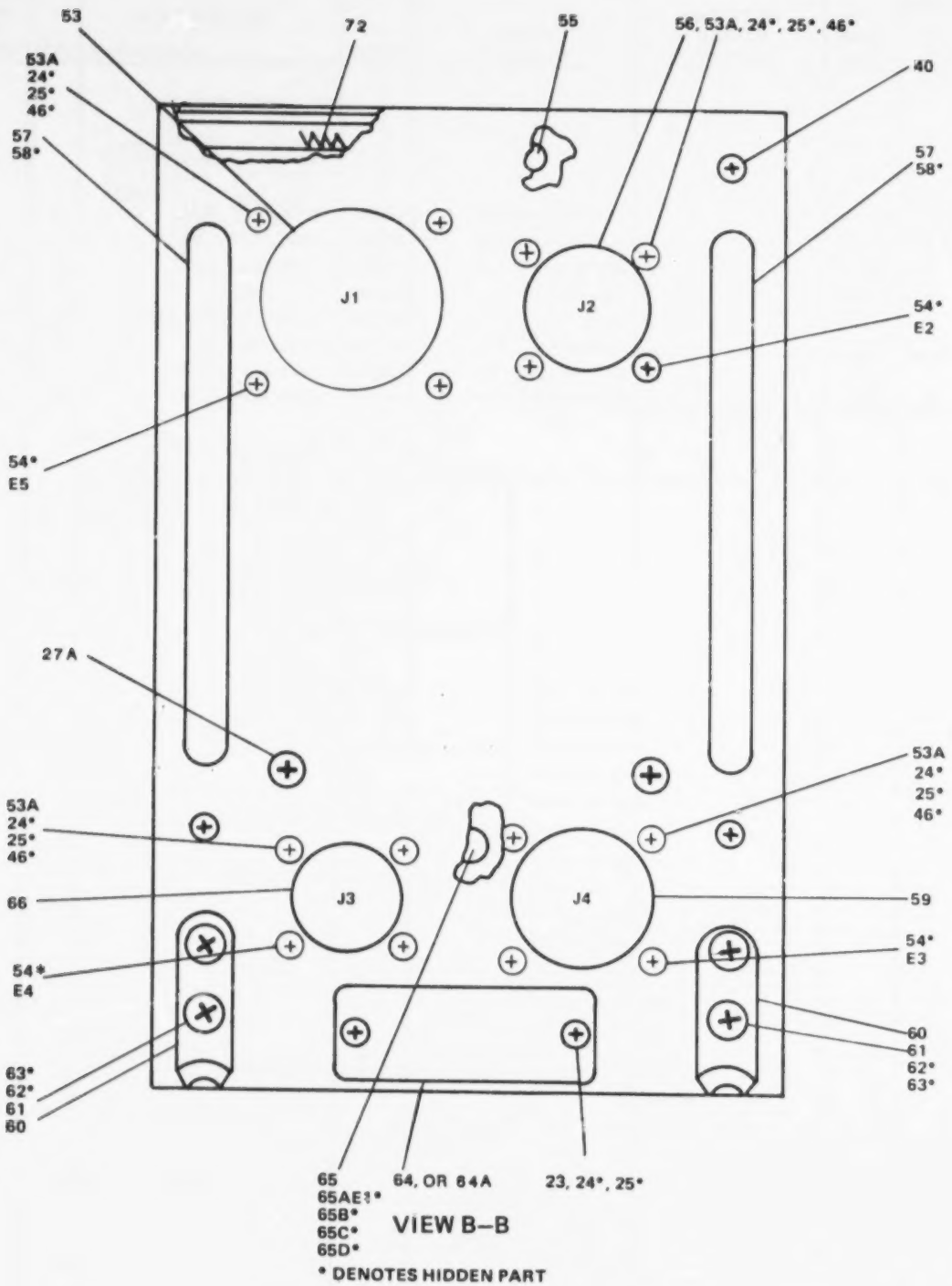


Figure C-5. Power Supply PP-7294/USQ and PP-7294A/USQ (Sheet 3 of 3)

SECTION II. REPAIR PARTS LIST

(1) ILLUSTRATION FIG NO	(1) ILLUSTRATION ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
						GP 0301 - BRANCHED WIRING HARNESS W1 5065661-1		
C-6	1	PAHZZ		MS27508E12F8PB	96906	CONN,RCPT,ELEC	EA	1
C-6	2	PAHZZ		MS27508E16F6PB	96906	CONN,RCPT,ELEC	EA	1
C-6	3	XDHZZ		MS25036-108	96906	TERMINAL,LUG	EA	3
C-6	4	XDHZZ		TMS-CM-1/2-9	06090	BAND,MARKER	EA	1
C-6	5	XDHZZ		MS3367-1-9	96906	STRAP,TIEDOWN,ELEC	EA	3
C-6	6	XDHZZ		MS77066-1	96906	TERMINAL,LUG	EA	4
C-6	7	PAHZZ		MS27508E14F15SB	96906	CONN,RCPT,ELEC	EA	1
C-6	8	PAHZZ		MS27508E22F21SA	96906	CONN,RCPT,ELEC	EA	1

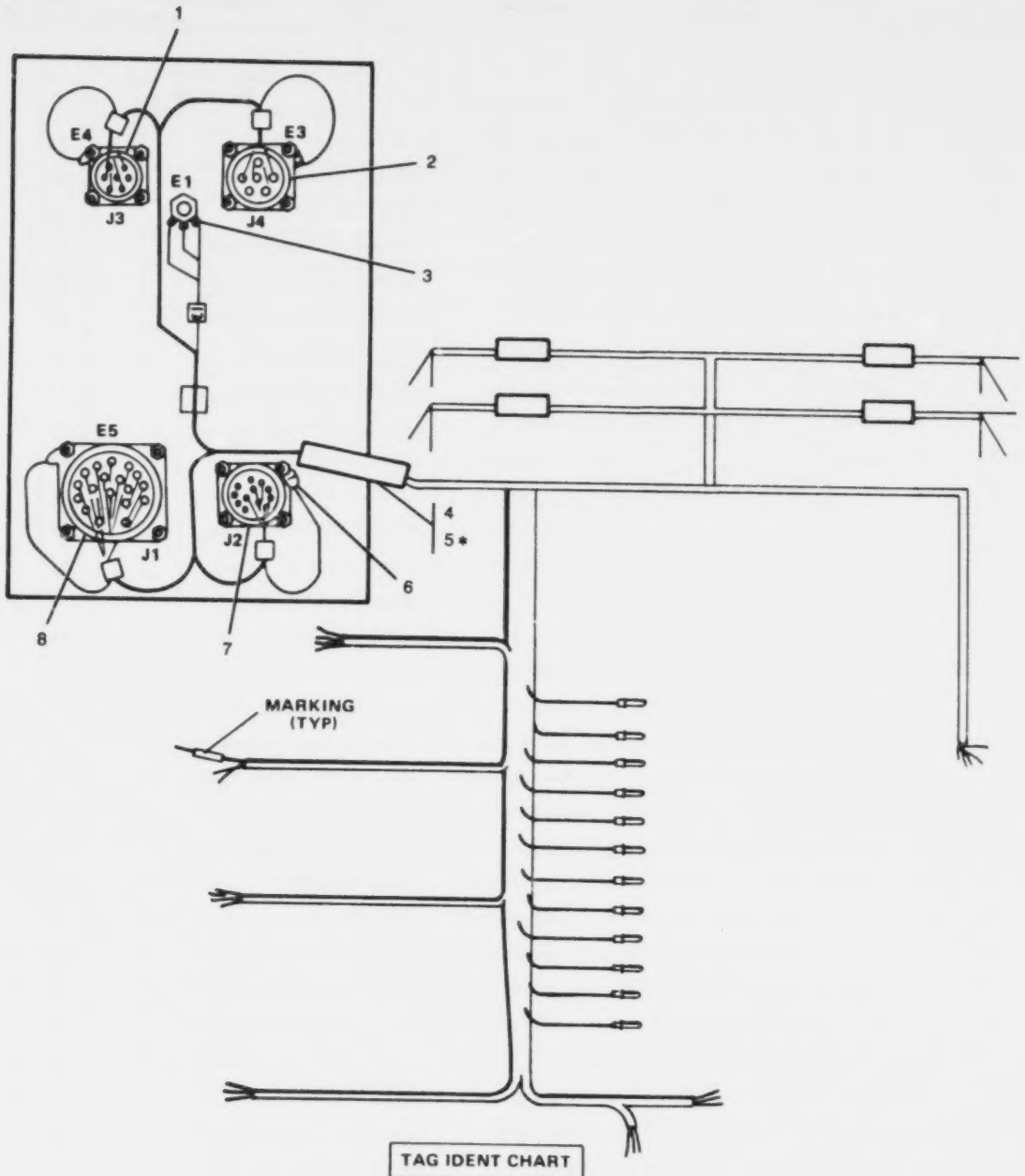
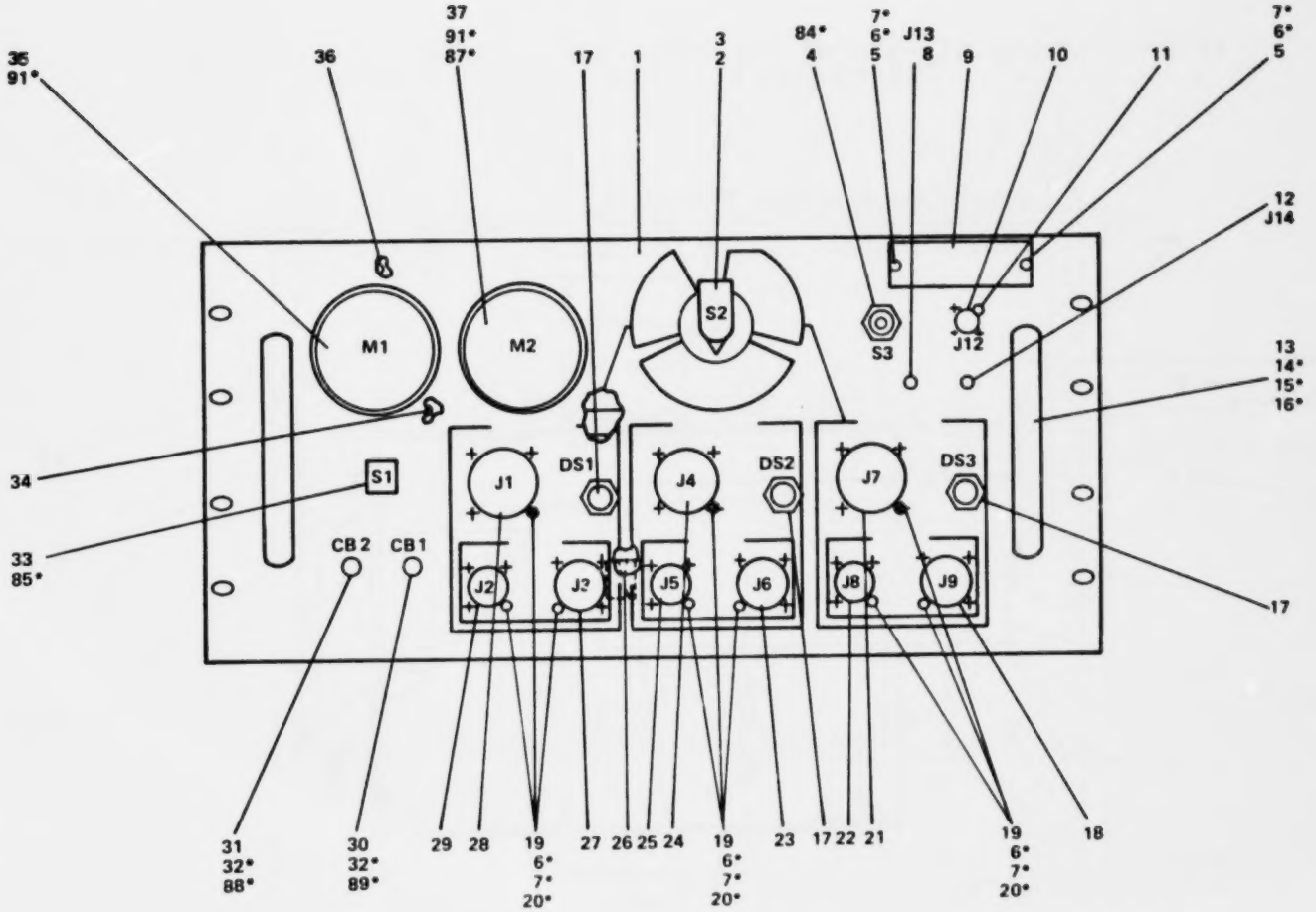


Figure C-6. Branched Wiring Harness W1

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION (USABLE ON CODE)	U/M	QTY INC IN UNIT
FIG NO	ITEM NO							
						GP 04 - POWER SUPPLY TEST SET AN/USM-435		
						1951-1-4754-1 (15942)		
C-7		XBFFD		1951-1-4754-1	15942	TEST SET	EA	1
C-7	1	XBFFF		1951-1-5082-1	15942	PANEL, FRONT	EA	1
C-7	2	PAFZZ	5355-00-751-7597	MS91528-1B28	96906	KNOB	EA	1
C-7	3	PAFZZ	5930-00-503-0646	JV9013	71590	SWITCH, ROTARY	EA	1
C-7	4	PAFZZ	5930-00-655-1518	MS35058-27	96906	SWITCH, TOGGLE	EA	1
C-7	5	XBFZZ	5305-00-054-5646	MS51957-12	96906	SCREW, MACHINE	EA	2
C-7	6	XBFZZ	5310-00-595-6211	MS15795-803	96906	WASHER, FLAT	EA	62
C-7	7	XBFZZ	5310-00-933-8118	MS35338-135	96906	WASHER, LOCK	EA	62
C-7	8	PAFZZ	5935-00-702-4199	M39024-10-02	81349	JACK, TIP	EA	1
C-7	9	XBFZZ		1951-1-3314-6	15942	PLATE, IDENT	EA	1
C-7	10	PAFZZ	5935-00-838-8470	M39012-22-0001	81349	CONN, RCPT, ELEC	EA	1
C-7	11	XBFZZ		A1458230BLL	70318	SCREW, MACHINE	EA	4
C-7	12	PAFZZ	5935-00-762-0312	M39024-10-03	81349	JACK, TIP	EA	1
C-7	13	XBFZZ		VPC241	08730	HANDLE, BOW	EA	2
C-7	14	XBFZZ	5305-00-059-3661	MS51958-65	96906	SCREW, MACHINE	EA	4
C-7	15	XBFZZ	5310-00-619-1148	MS15795-808	96906	WASHER, FLAT	EA	4
C-7	16	XBFZZ	5310-00-933-8120	MS35338-138	96906	WASHER, LOCK	EA	4
C-7	17	PAFZZ	6210-00-782-5606	MS25041-8-327	96906	LIGHT, INDICATOR	EA	3
C-7	18	PAFZZ	5935-01-065-8003	MS27508E16F6SB	96906	CONN, RCPT, ELEC	EA	1
-7	19	XBFZZ	5305-00-056-9961	MS24693C4	96906	SCREW, MACHINE	EA	36
-7	20	XBFZZ	5310-00-208-3786	NAS671C4	80205	NUT, PLAIN, HEX	EA	47
-7	21	PAFZZ	5935-01-065-6408	MS27508E22F21PA	96906	CONN, RCPT, ELEC	EA	1
C-7	22	PAFZZ	5935-01-065-6409	MS27508E12F8SB	96906	CONN, RCPT, ELEC	EA	1
C-7	23	PAFZZ	5935-01-065-8002	MS27508E16F6SA	96906	CONN, RCPT, ELEC	EA	1
C-7	24	PAFZZ	5935-01-065-7472	MS27508E20F16P	96906	CONN, RCPT, ELEC	EA	1
C-7	25	PAFZZ	5935-01-065-8001	MS27508E12F8SA	96906	CONN, RCPT, ELEC	EA	1
C-7	26	XBFZZ		TC342	59730	SPRT, ELEC CABLE	EA	10
C-7	27	PAFZZ	5935-01-064-9211	MS27508E16F6S	96906	CONN, RCPT, ELEC	EA	1
C-7	28	PAFZZ	5935-01-064-9935	MS27508E22F21P	96906	CONN, RCPT, ELEC	EA	1
C-7	29	PAFZZ	5935-01-065-8000	MS27508E12F8S	96906	CONN, RCPT, ELEC	EA	1
C-7	30	PAFZZ	5925-00-682-4015	MS25244-20	96906	CIRCUIT BREAKER	EA	1
C-7	31	PAFZZ		1526-019-105	76374	CIRCUIT BREAKER	EA	1

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
C-7	32	XBFZZ		1951-1-2039-1	15942	PLATE, INSTR	EA	3
C-7	33	PAFZZ		10648EL5-1	08719	SWITCH, PUSH	EA	1
C-7	34	XBFZZ	5307-00-486-3376	CFHC440-6	46384	STUD, PLAIN, THD	EA	8
C-7	35	PAFZZ	6625-00-881-5092	MR26W1T1DCAAR	81349	AMMETER	EA	1
C-7	36	XBFZZ	5307-00-234-7428	CFHC632-6	46384	STUD, PLAIN, THD	EA	14
C-7	37	PAFZZ	6625-00-854-7631	MR26W5T5DCVVR	81349	VOLTMETER	EA	1
C-7	38	XBFFF		1951-1-4776-1	15942	COVER, ACCESS	EA	1
C-7	39					NOT USED		
C-7	40	XBFZZ	5320-00-117-6938	MS20426AD3-4	96906	RIVET, SOLID	EA	176
C-7	41	XBFZZ	5305-00-993-9189	MS24693C2	96906	SCREW, MACHINE	EA	13
C-7	42	XBFZZ	5310-00-589-7962	FE440	46384	NUT, SLFLKG, CL	EA	13
C-7	43	PAFZZ	5325-00-758-0113	5R2-3	71268	RCPT, TURNLOCK	EA	44
C-7	44	XBFFF		1951-1-5084-1	15942	CHAS, ELEC EQPT	EA	1
C-7	45	XBFZZ		045871	10003	SLIDE, DWR, EXT	EA	2
C-7	46	XBFFF		1951-1-4776-2	15942	COVER, ACCESS	EA	1
C-7	47	PAFZZ	5340-00-759-6438	FEB32	46384	NUT, SLFLKG, PL	EA	8
C-7	48	XBFZZ		MS24583-42	96906	SCREW, MACHINE	EA	8
C-7	49	XBFFF		1951-1-4810-1	15942	PLATE, MTG	EA	1
C-7	50	PAFZZ	5945-00-038-5823	MS27401-4	96906	RELAY, ARMATURE	EA	3
C-7	51	PAFZZ		S0-1049-8772	35344	SKT, ELEK CMPNT	EA	3
C-7	52	XBFZZ	5930-00-615-6731	MS25171-1S	96906	NIPPLE, CBL ELEC	EA	8
C-7	53	PAFZZ	5915-01-065-8383	LMF1889	29098	FILTER, LOWPASS	EA	1
C-7	54	PAFZZ		LMF1888	29098	FILTER, RFI	EA	1
C-7	55	XBFZZ	5305-00-054-6669	MS51957-44	96906	SCREW, MACHINE	EA	6
C-7	56	XBFZZ	5310-00-880-5978	MS15795-807	96906	WASHER, FLAT	EA	6
C-7	57	XBFZZ	5310-00-933-8119	MS35338-137	96906	WASHER, LOCK	EA	6
C-7	58	PAFZZ	5905-01-072-3779	RE77GR562	81349	RES, FXD, WW	EA	1
C-7	59	PAFZZ		RER55F15R0P	81349	RES, FXD, WW	EA	1
C-7	60	PAFZZ		RER55F71R5P	81349	RES, FXD, WW	EA	1
C-7	61	PAFZZ	5905-01-074-0646	RE77G1R54	81349	RES, FXD, WW	EA	1
C-7	62	XBFZZ	5305-00-054-5849	MS51957-15	96906	SCREW, MACHINE	EA	9
C-7	63	PAFZZ		RER75F6R19P	81349	RES, FXD, WW	EA	1
C-7	64	PAFZZ	5905-00-917-3244	RE77G4R99	81349	RES, FXD, WW	EA	1
C-7	65	XBFZZ		1951-1-4809-1	15942	HEATSINK	EA	1

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
C-7	66	XBFZZ		1951-1-2427-1	15942	BAR SUPPORT	EA	1
C-7	67	XBFZZ	5305-00-054-5647	MS51957-13	96906	SCREW,MACHINE	EA	7
C-7	68	PAFZZ	5310-00-849-1984	553-2	71286	WASHER,SPLIT	EA	44
C-7	69	PAFZZ	5325-00-601-7292	557-12	71286	STUD,TURNLOCK	EA	44
C-7	70	XBFZZ	5310-00-616-8660	NAS671C6	80205	NUT,PLAIN,HEX	EA	16
C-7	71	XBFZZ	5310-00-929-6395	MS35338-136	96906	WASHER,LOCK	EA	22
C-7	72	XBFZZ	5310-00-722-5998	MS15795-805	96906	WASHER,FLAT	EA	22
C-7	73	XBFZZ		SE26XF01S	81349	TERMINAL STUD	EA	6
C-7	74	XBFZZ		1951-1-3334-1	15942	BRACKET,ANGLE	EA	1
C-7	75	XBFZZ	5940-00-950-7784	MS27212-2-6	96906	TERMINAL BOARD	EA	1
C-7	76	XBFZZ	5940-00-232-4337	MS18029-256	96906	COVER ASSY,ELEC	EA	1
C-7	77	XBFZZ	5305-00-054-6653	MS51957-29	96906	SCREW,MACHINE	EA	2
C-7	78	XBFZZ	5305-00-054-6654	MS51957-30	96906	SCREW,MACHINE	EA	3
C-7	79	XBFZZ	5310-00-411-2957	8215A0632-10A	06540	POST,ELEC-MECH	EA	6
C-7	80	XBFZZ	5310-00-209-1366	MS35335-58	96906	WASHER,LOCK	EA	6
C-7	81	XBFZZ	5305-00-054-6659	MS51957-35	96906	SCREW,MACHINE	EA	3
C-7	82	XBFZZ	5305-01-040-5484	NAS1189E06P5L	80205	SCREW,MACHINE	EA	8
C-7	83	XBFZZ	5305-00-372-9985	NAS1189E04P7L	80205	SCREW,SLFLKG	EA	18
C-7	84	XBFZZ	5940-00-283-5280	MS25036-106	96906	TERMINAL,LUG	EA	3
C-7	85	XBFZZ	5999-00-137-5066	M39029-1-16-20	81349	CONTACT,ELEC	EA	10
C-7	86	XBFZZ	5940-00-143-4780	MS25036-108	96906	TERMINAL,LUG	EA	11
C-7	87	XBFZZ	5940-00-113-8184	MS25036-150	96906	TERMINAL,LUG	EA	7
C-7	88	XBFZZ	5940-00-557-1629	MS25036-149	96906	TERMINAL,LUG	EA	6
C-7	89	XBFZZ	5940-00-204-8990	MS25036-111	96906	TERMINAL,LUG	EA	2
C-7	90	XBFZZ	5940-00-143-4777	MS25036-157	96906	TERMINAL,LUG	EA	3
C-7	91	XBFZZ	5940-00-230-0515	MS25036-154	96906	TERMINAL,LUG	EA	11
C-7	92	XBFZZ	5940-00-143-4794	MS25036-112	96906	TERMINAL,LUG	EA	1



FRONT VIEW

* DENOTES HIDDEN PART

Figure C-7. Power Supply Test Set AN/USM-435 (Sheet 1 of 5)

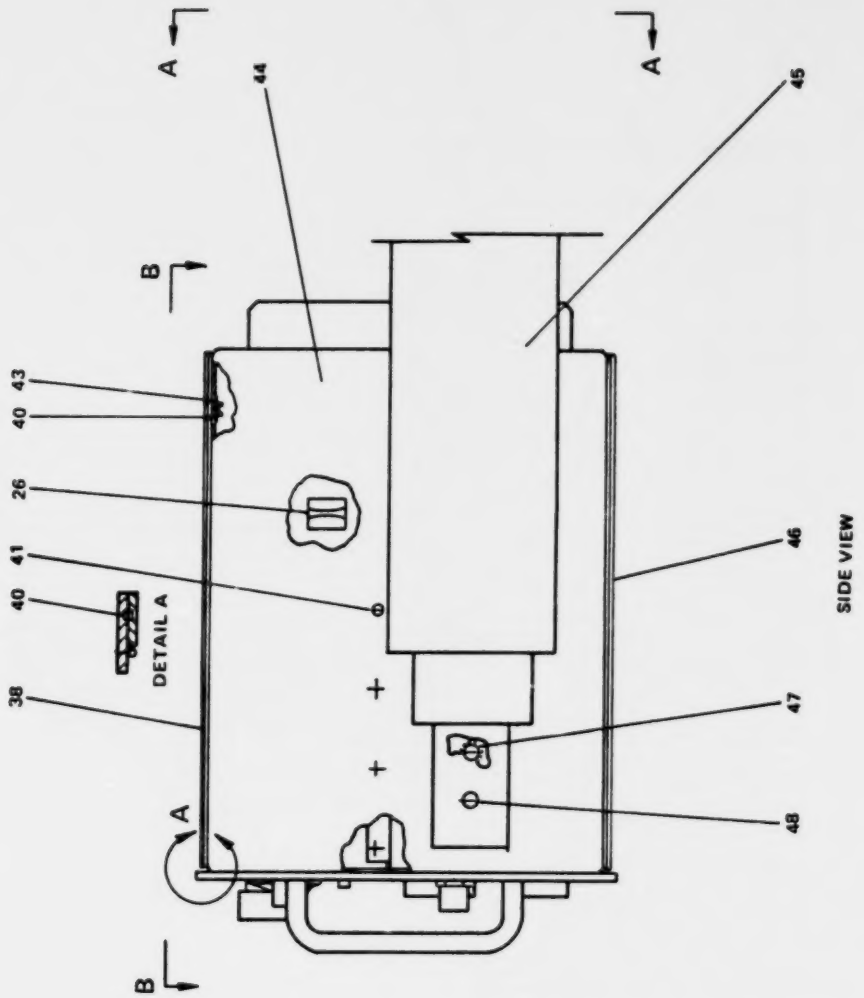


Figure C-7. Power Supply Test Set AN/USM-435 (Sheet 2 of 5)

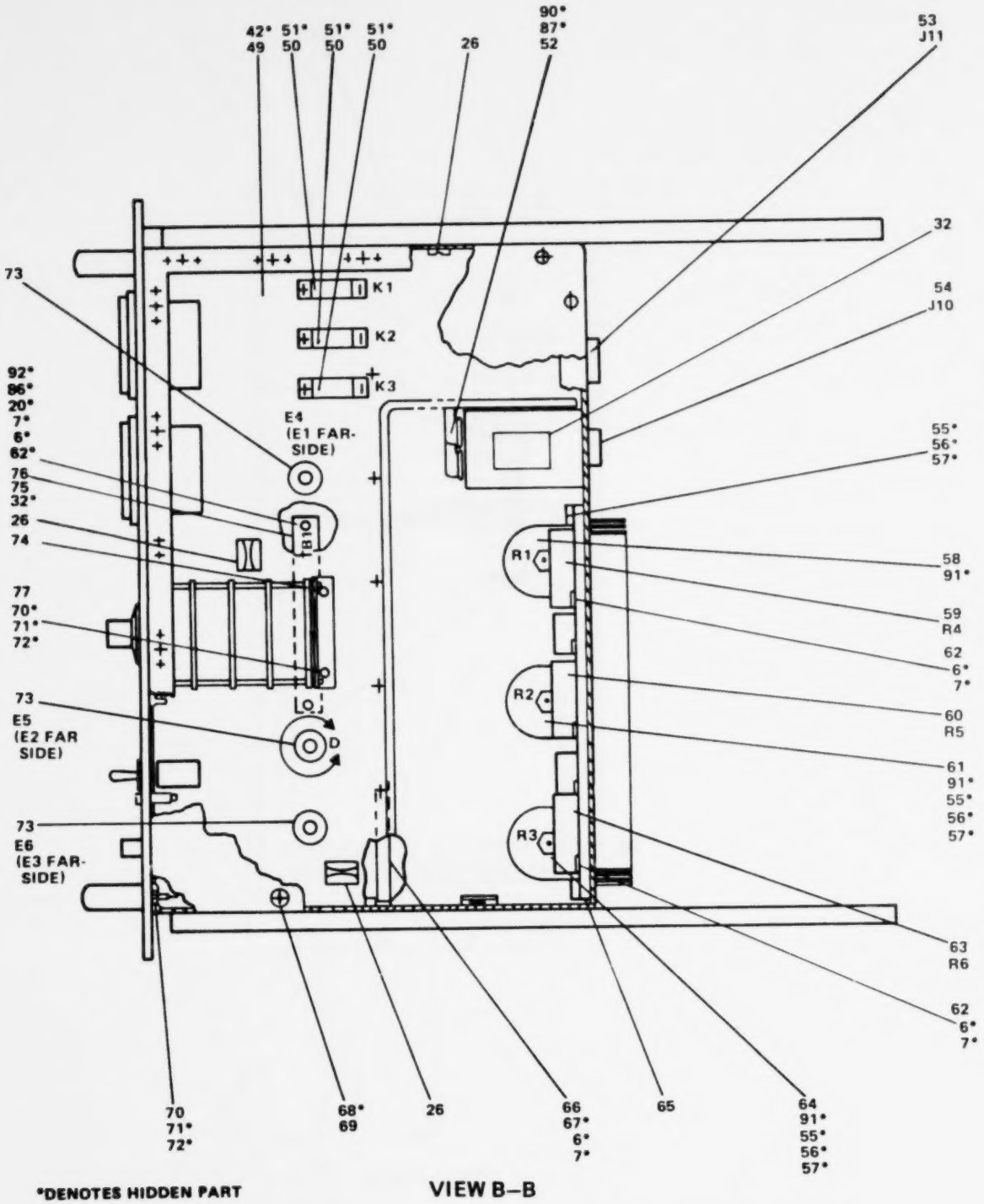
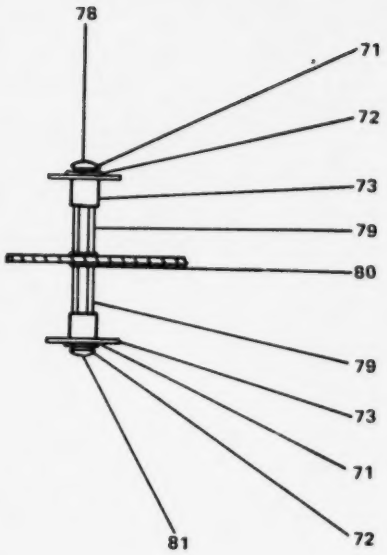


Figure C-7. Power Supply Test Set AN/USM-435 (Sheet 3 of 5)



DETAIL D (TYPICAL 3 PLACES)

Figure C-7. Power Supply Test Set AN/USM-435 (Sheet 4 of 5)

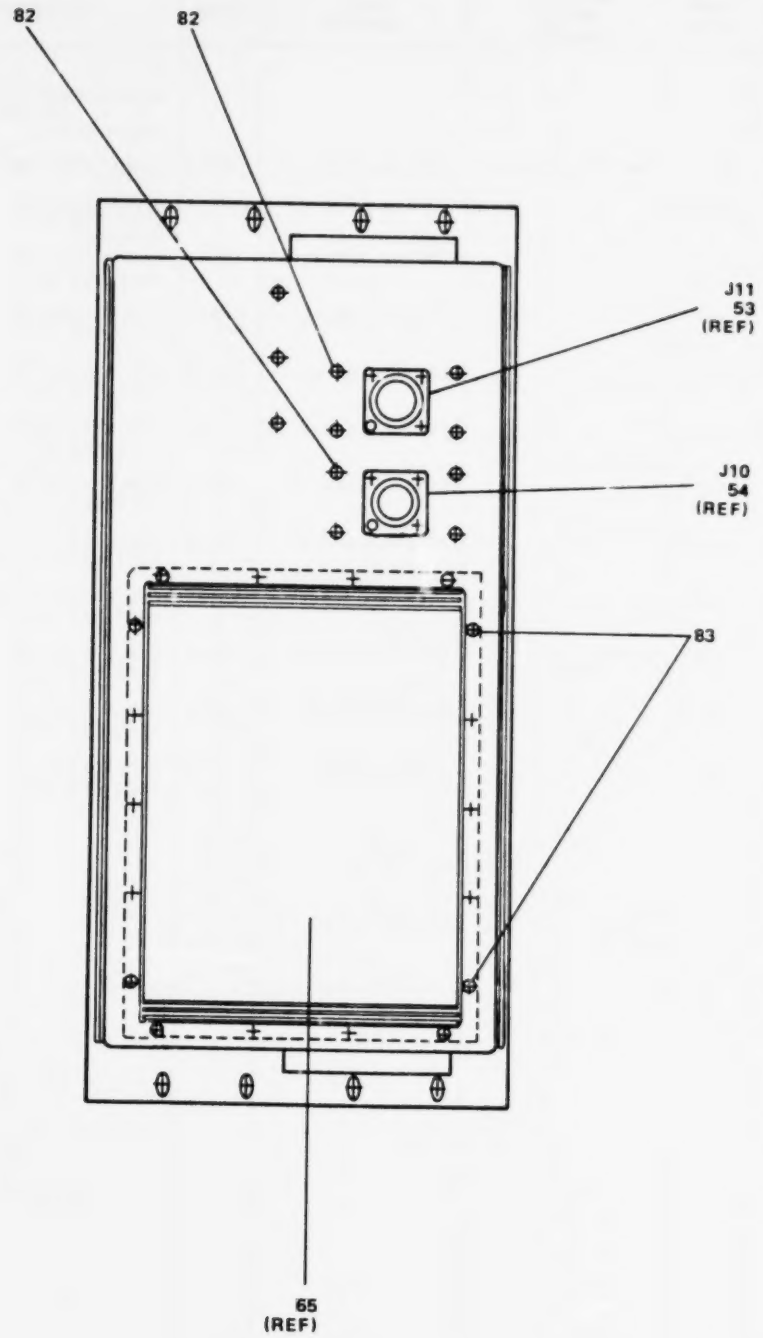


Figure C-7. Power Supply Test Set AN/USM-435 (Sheet 5 of 5)

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
						GP 05 - POWER SUPPLY TEST SET CABLE KIT 1951-1-1113-1 (15942)		
C-8		XCFZZ	5865-01-070-6587	1951-1-1113-1	15942	CABLE ASSY SET	EA	1
C-8	1	XBFFF		1951-1-4678-1	15942	CABLE ASSY, SP (SEE FIG 9)	EA	1
C-8	2	XBFFF		1951-1-4679-1	15942	CABLE ASSY, SP (SEE FIG 10)	EA	1
C-8	3	XBFFF		1951-1-4680-1	15942	CABLE ASSY, SP (SEE FIG 11)	EA	1
C-8	4	XBFFF		1951-1-4681-1	15942	CABLE ASSY, SP (SEE FIG 12)	EA	1
C-8	5	XBFFF		1951-1-4682-1	15942	CABLE ASSY, SP (SEE FIG 13)	EA	1
C-8	6	XBFFF		1951-1-4683-1	15942	CABLE ASSY, SP (SEE FIG 14)	EA	1
C-8	7	XBFFF		1951-1-4684-1	15942	CABLE ASSY, SP (SEE FIG 15)	EA	1
C-8	8	XBFFF		1951-1-4685-1	15942	CABLE ASSY, SP (SEE FIG 16)	EA	1
C-8	9	XBFFF		1951-1-4686-1	15942	CABLE ASSY, SP (SEE FIG 17)	EA	1
C-8	10	XBFFF		1951-1-4687-1	15942	CABLE ASSY, SP (SEE FIG 18)	EA	1
C-8	11	XBFFF		1951-1-4688-1	15942	CABLE ASSY, SP (SEE FIG 19)	EA	1

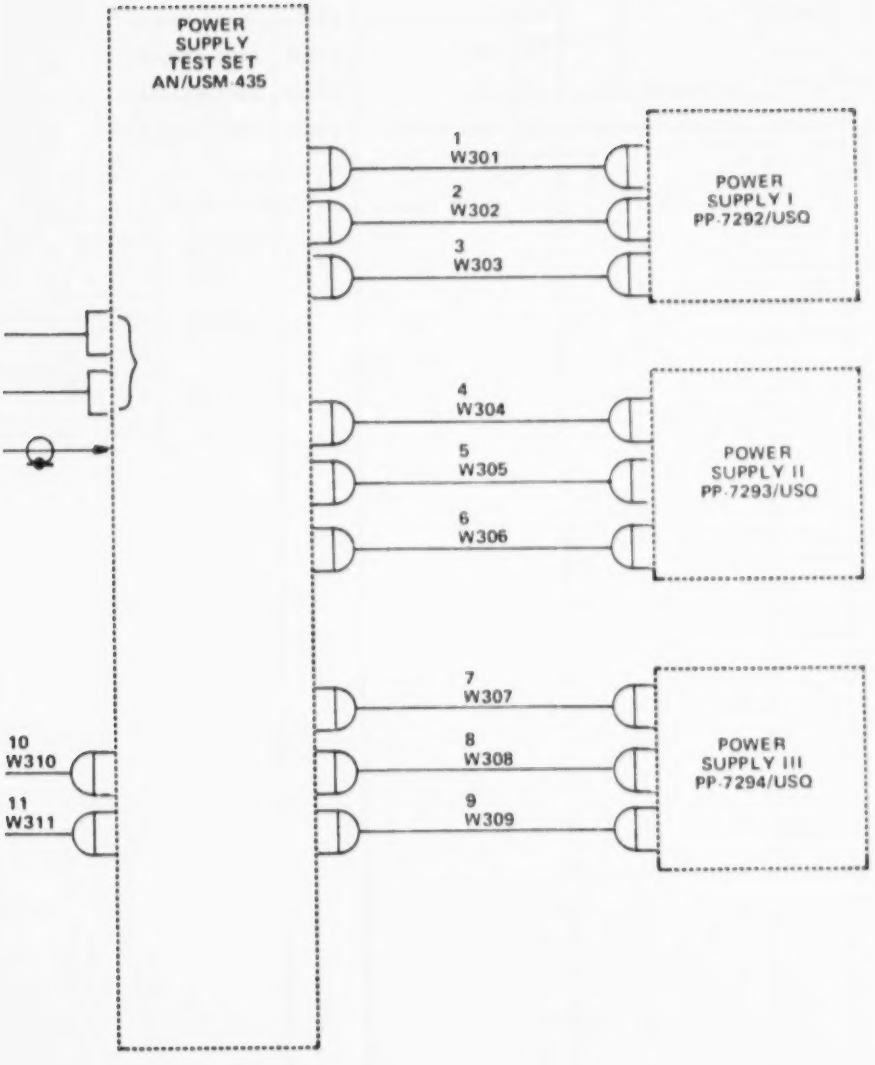


Figure C-8. Power Supply Test Set Cable Kit

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
						GP 0501 - SPECIAL PURPOSE CABLE ASSEMBLY W301		
C-9	1	PAFZZ	5935-01-064-5696	MS27484T22F21S	96906	CONN, PLUG, ELEC	EA	1
C-9	2	XBFZZ		SE9F2516A1-5-12	07418	CLAMP, CABLE	EA	2
C-9	3	XBFZZ		WTW1334	59730	BAND, MARKER	EA	2
C-9	4	XBFZZ	7690-01-052-4755	WTW2334	59730	BAND, MARKER	EA	2
C-9	5	PAFZZ	5935-01-064-5695	MS27484T22F21P	96906	CONN, PLUG, ELEC	EA	1

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4678-1 MFR 28815 W301
"B" TAG	W301P1 AN/USM-435 (J1)
"C" TAG	W301P2 PP-7292/USQ (J2)

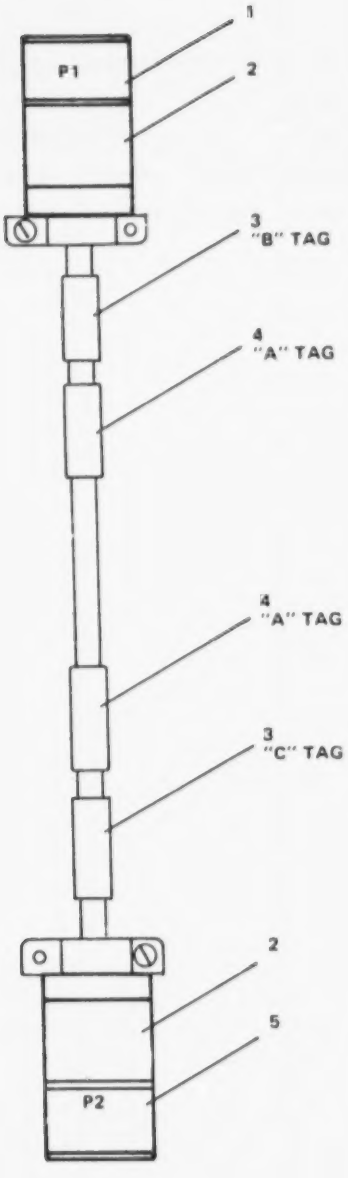


Figure C-9. Special Purpose Cable Assembly W301

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
						GP 0502 - SPECIAL PURPOSE CABLE ASSEMBLY W302		
C-10	1	PAFZZ	5935-01-064-5705	MS27484T12F8P	96906	CONN, PLUG, ELEC	EA	1
C-10	2	XBFZZ		SE6F0908A1-5-12	07418	CL AMP, CABLE	EA	2
C-10	3	XBFZZ		WTW1334	59730	BAND, MARKER	EA	2
C-10	4	XBFZZ	7690-01-052-4755	WTW2334	59730	BAND, MARKER	EA	2
C-10	5	PAFZZ	5935-01-064-5686	MS27484T12F8S	96906	CONN, PLUG, ELEC	EA	1

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4679-1 MFR 28815 W302
"B" TAG	W302P1 AN/USM-435 (J2)
"C" TAG	W302P2 PP-7292/USQ (J5)

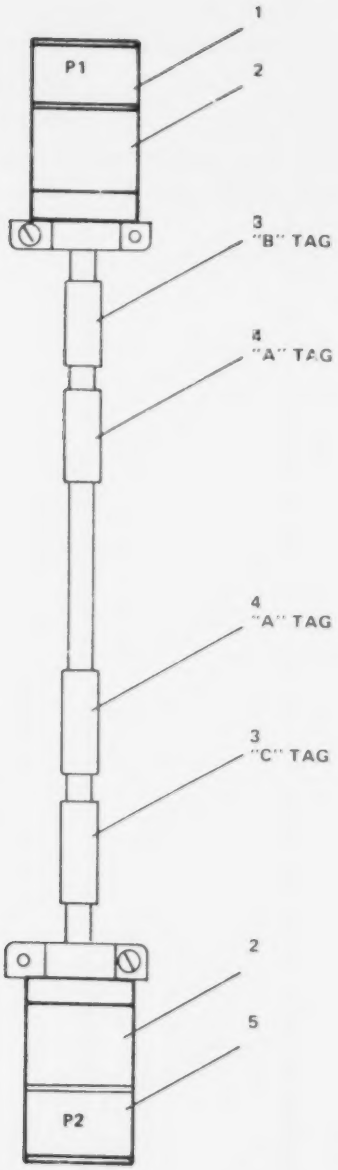


Figure C-10. Special Purpose Cable Assembly W302

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
						GP 0503 - SPECIAL PURPOSE CABLE ASSEMBLY W303		
C-11	1	PAFZZ	5935-01-064-9149	MS27484T16F6P	96906	CONN, PLUG, ELEC	EA	1
C-11	2	XBFZZ		SE9F1508A1-5-12	07418	CLAMP, CABLE	EA	2
C-11	3	XBFZZ		WTW1334	59730	BAND, MARKER	EA	2
C-11	4	XBFZZ	7690-01-052-4755	WTW2334	59730	BAND, MARKER	EA	2
C-11	5	PAFZZ	5935-01-063-9127	MS27484T16F6S	96906	CONN, PLUG, ELEC	EA	1

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4680-1 MFR 28815 W303
"B" TAG	W303P1 AN/USM-435 (J3)
"C" TAG	W303P2 PP-7292/USQ (J6)

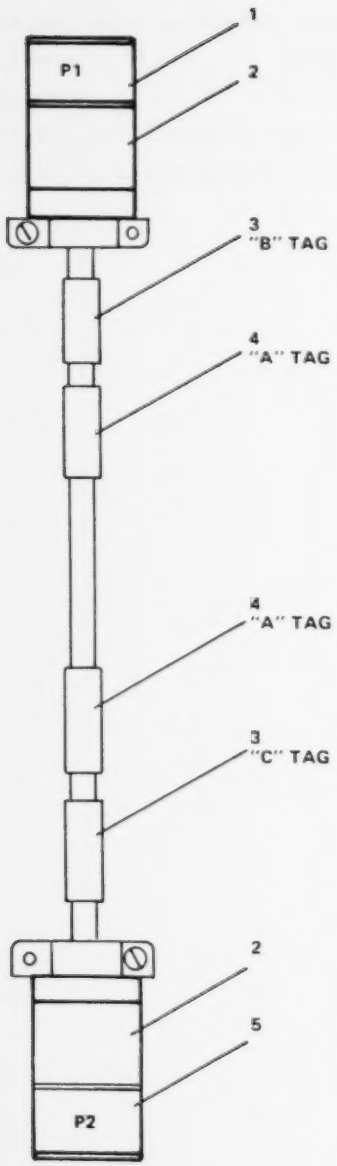


Figure C-11. Special Purpose Cable Assembly W303

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
						GP 0504 - SPECIAL PURPOSE CABLE ASSEMBLY W304		
C-12	1	PAFZZ	5935-01-064-4729	MS27484T20F16S	96906	CONN, PLUG, ELEC	EA	1
C-12	2	XBFZZ		SE9F2212A1-5-12	07418	CLAMP, CABLE	EA	2
C-12	3	XBFZZ		MTW1334	59730	BAND, MARKER	EA	2
C-12	4	XBFZZ	7690-01-052-4755	MTW2334	59730	BAND, MARKER	EA	2
C-12	5	PAFZZ	5935-01-064-4731	MS27484T20F16PA	96906	CONN, PLUG, ELEC	EA	1

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4681-1 MFR 28815 W304
"B" TAG	W304P1 AN/USM-435 (J4)
"C" TAG	W304P2 PP-7293/USQ (J1)

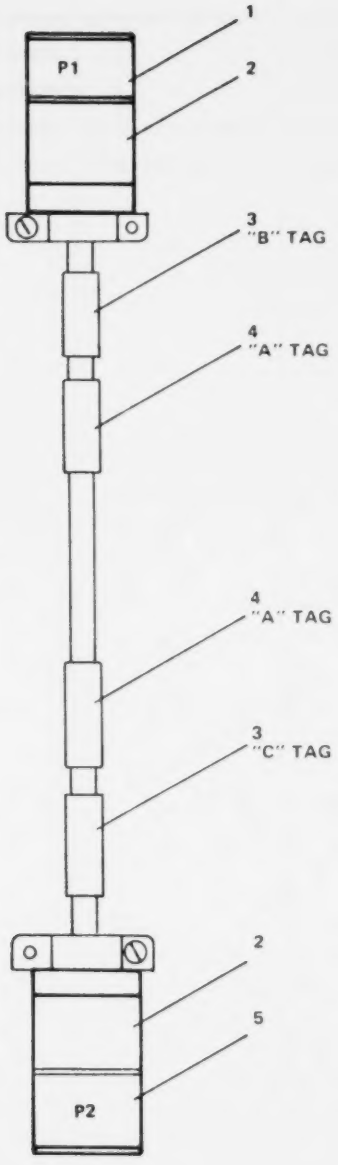


Figure C-12. Special Purpose Cable Assembly W304

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
						GP 0505 - SPECIAL PURPOSE CABLE ASSEMBLY W305		
C-13	1	PAFZZ	5935-01-065-7978	MS27484T12F8PA	96906	CONN, PLUG, ELEC	EA	1
C-13	2	XBFZZ		SE9F0908A1-5-12	07418	CLAMP, CABLE	EA	2
C-13	3	XBFZZ		WTW1334	59730	BAND, MARKER	EA	2
C-13	4	XBFZZ	7690-01-052-4755	WTW2334	59730	BAND, MARKER	EA	2
C-13	5	PAFZZ	5935-01-064-5687	MS27484T12F8SA	96906	CONN, PLUG, ELEC	EA	1

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4682-1 MFR 28815 W305
"B" TAG	W305P1 AN/USM-435 (J5)
"C" TAG	W305P2 PP-7293/USQ (J6)

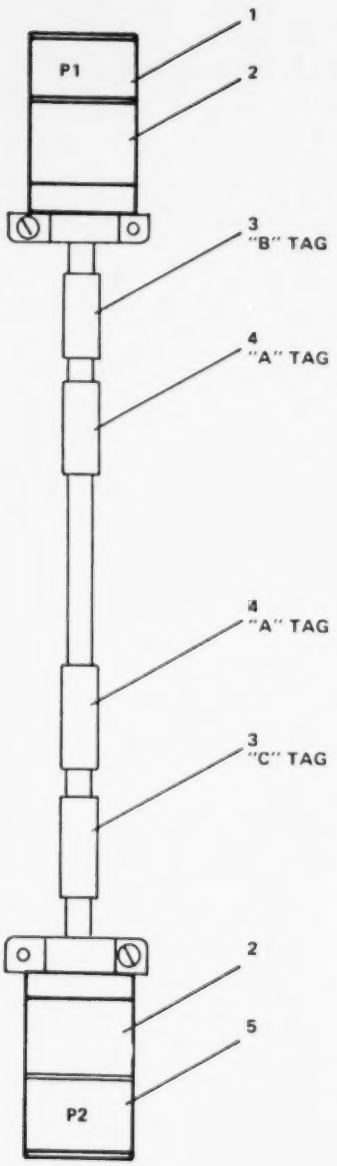


Figure C-13. Special Purpose Cable Assembly W305

ILLUSTRATION		(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
(1) FIG NO.	(1) ITEM NO.							
						GP 0506 - SPECIAL PURPOSE CABLE ASSEMBLY W306		
C-14	1	PAFZZ	5935-01-066-1934	MS27484T16F6PA	96906	CONN, PLUG, ELEC	EA	1
C-14	2	XBFZZ		SE9F1508A1-3-12	07418	CLAMP, CABLE	EA	2
C-14	3	XBFZZ		WTW1334	59730	BAND, MARKER	EA	2
C-14	4	XBFZZ	7690-01-052-4755	WTW2334	59730	BAND, MARKER	EA	2
C-14	5	PAFZZ	5935-01-064-5689	MS27484T16F6SA	96906	CONN, PLUG, ELEC	EA	1

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4683-1 MFR 28815 W306
"B" TAG	W306P1 AN/USM-435 (J6)
"C" TAG	W306P2 PP-7293/USQ (J7)

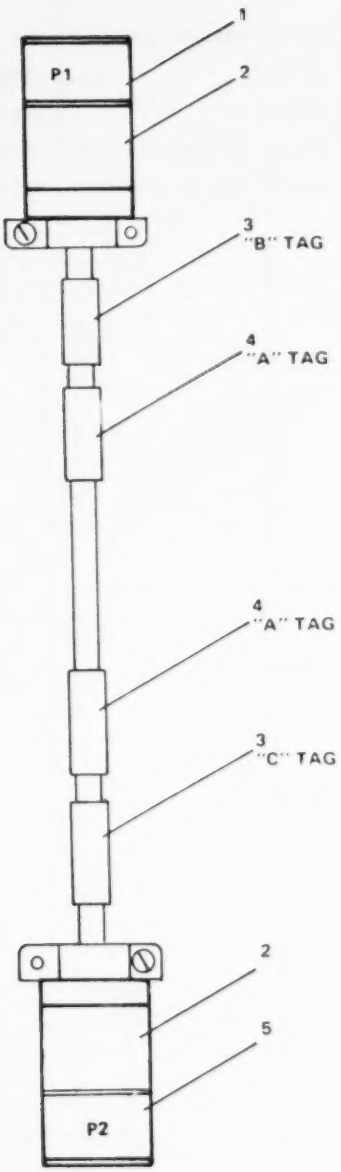


Figure C-14. Special Purpose Cable Assembly W306

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
						GP 0507 - SPECIAL PURPOSE CABLE ASSEMBLY W307		
C-15	1	PAFZZ	5935-01-066-1935	MS27484T22F21SA	96906	CONN, PLUG, ELEC	EA	1
C-15	2	XBFZZ		SE9F2516A1-5-12	07418	CLAMP, CABLE	EA	2
C-15	3	XBFZZ		WTW1334	59730	BAND, MARKER	EA	2
C-15	4	XBFZZ	7690-01-052-4755	WTW2334	59730	BAND, MARKER	EA	2
C-15	5	PAFZZ	5935-01-064-5697	MS27484T22F21PA	96906	CONN, PLUG, ELEC	EA	1

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4684-1 MFR 28815 W307
"B" TAG	W307P1 AN/USM-435 (J7)
"C" TAG	W307P2 PP-7294/USQ (J1)

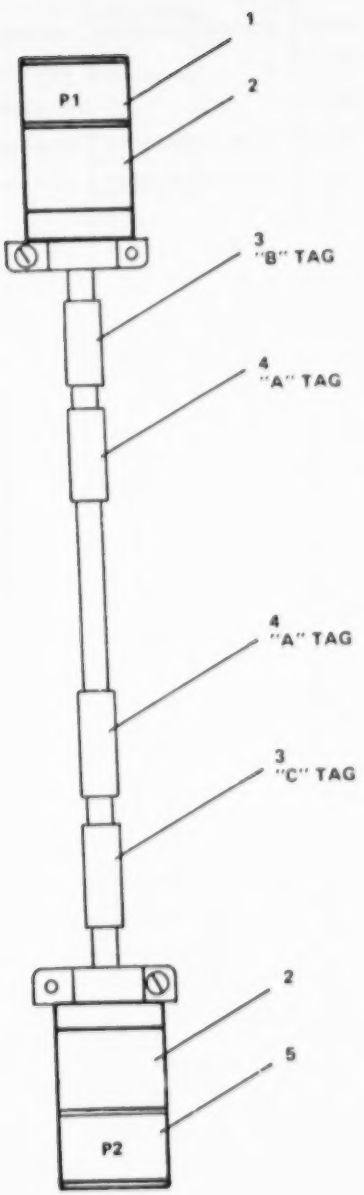


Figure C-15. Special Purpose Cable Assembly W307

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
						EP 0508 - SPECIAL PURPOSE CABLE ASSEMBLY W308		
C-16	1	PAFZZ	5935-01-066-1936	MS27484T12F8P8	96906	CONN, PLUG, ELEC	EA	1
C-16	2	XBFZZ		SE9F0908A1-5-12	07418	CLAMP, CABLE	EA	2
C-16	3	XBFZZ		MTW1334	59730	BAND, MARKER	EA	2
C-16	4	XBFZZ	7690-01-052-4755	MTW2334	59730	BAND, MARKER	EA	2
C-16	5	PAFZZ	5935-01-064-5688	MS27484T12F8S8	96906	CONN, PLUG, ELEC	EA	1

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4685-1 MFR 28815 W308
"B" TAG	W308P1 AN/USM-435 (J8)
"C" TAG	W308P2 PP-7294/USQ (J3)

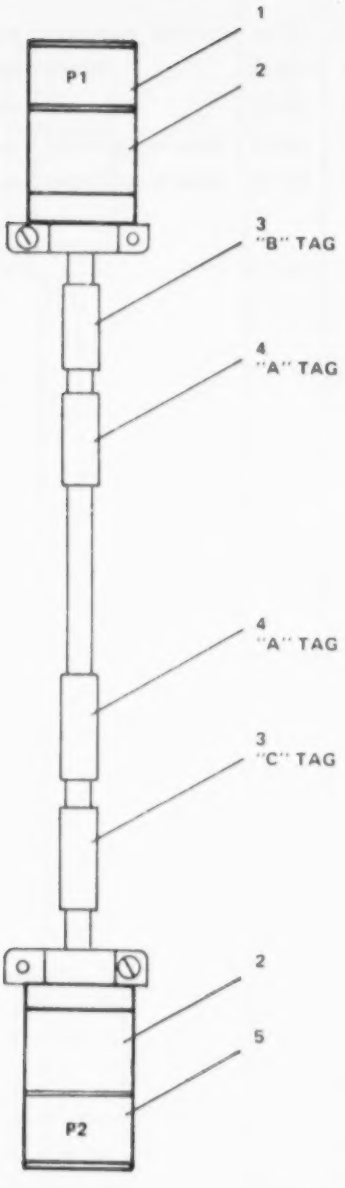


Figure C-16. Special Purpose Cable Assembly W308

(1) ILLUSTRATION FIG NO.	(1) ILLUSTRATION ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
						GP 0509 - SPECIAL PURPOSE CABLE ASSEMBLY W309		
C-17	1	PAFZZ	5935-01-066-1937	MS27484T16F6PE	96906	CONN, PLUG, ELEC	EA	1
C-17	2	XBFZZ		SE9F1508A1-5-12	07418	CLAMP, CABLE	EA	2
C-17	3	XBFZZ		WTW1334	59730	BAND, MARKER	EA	2
C-17	4	XBFZZ	7690-01-052-4755	WTW2334	59730	BAND, MARKER	EA	2
C-17	5	PAFZZ	5935-01-064-5690	MS27484T16F6SB	96906	CONN, PLUG, ELEC	EA	1

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4686-1 MFR 28815 W309
"B" TAG	W309P1 AN/USM-435 (J9)
"C" TAG	W309P2 PP-7294/USQ (J4)

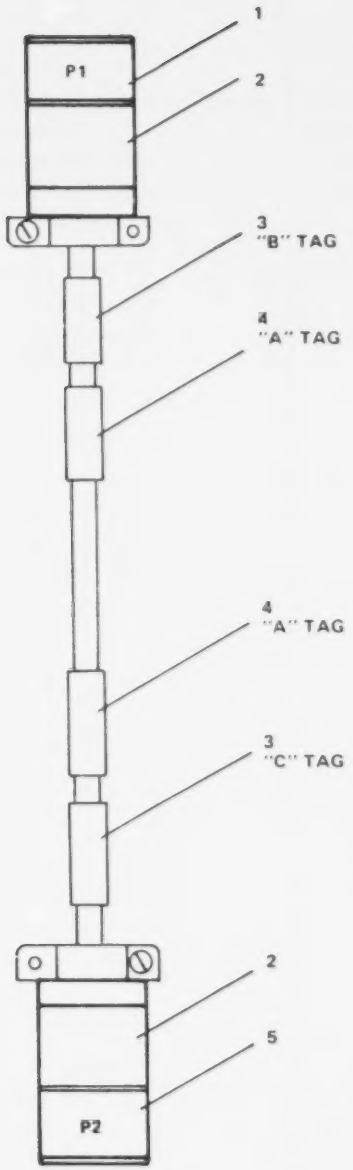


Figure C-17. Special Purpose Cable Assembly W309

SECTION II. REPAIR PARTS LIST

(1) ILLUSTRATION		(2)	(3)	(4)	(5)	(6)	(7)	(8)
FIG NO	ITEM NO	SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
						GP 0510 - SPECIAL PURPOSE CABLE ASSEMBLY W310		
C-18	1	PAFZZ	5935-01-064-5692	MS27484T14F5S	96906	CONN,PLUG,ELEC	EA	1
C-18	2	XBFZZ		SE9F1208A1-5-12	07418	CLAMP,CABLE	EA	1
C-18	3	XBFZZ		WTW1334	59730	BAND,MARKER	EA	2
C-18	4	XBFZZ	7690-01-052-4755	WTW2334	59730	BAND,MARKER	EA	2

TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4687-1 MFR 28815 W310
"B" TAG	W310P1 AN/USM-435 (J10)
"C" TAG	W310P2

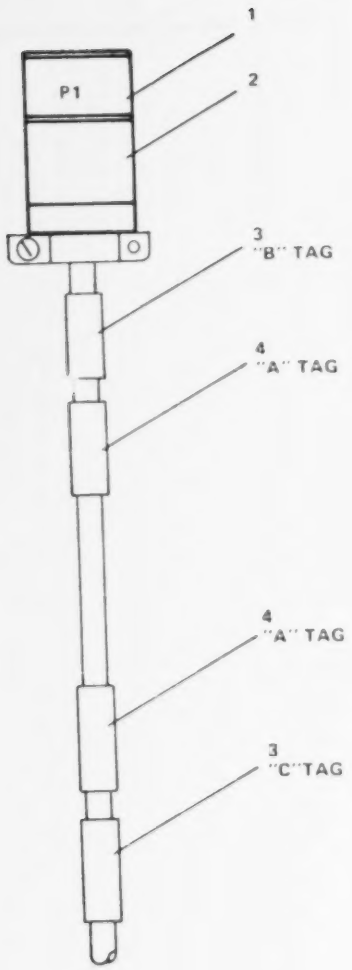
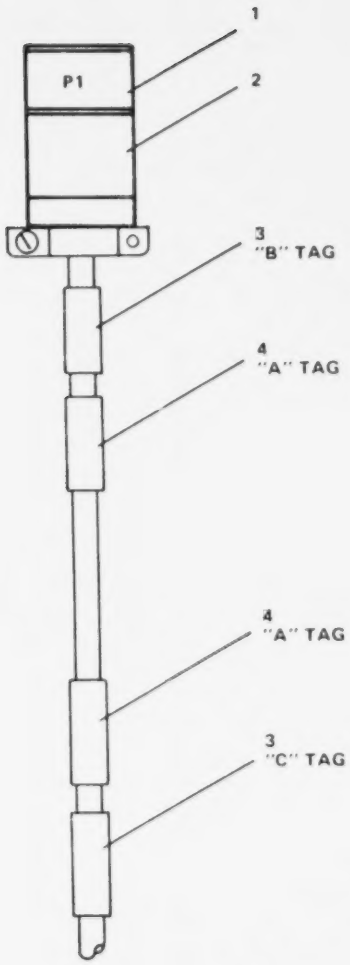


Figure C-18. Special Purpose Cable Assembly W310

ILLUSTRATION		SMR CODE	NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
FIG NO.	ITEM NO.							
						GP 0511 - SPECIAL PURPOSE CABLE ASSEMBLY W311		
C-19	1	PAFZZ	5935-01-063-9127	MS27484T16F6S	96906	CONN, PLUG, ELEC	EA	1
C-19	2	XBFZZ		SE9F1508A1-3-12	07418	CLAMP, CABLE	EA	1
C-19	3	XBFZZ		WTW1334	59730	BAND, MARKER	EA	2
C-19	4	XBFZZ	7690-01-052-4755	WTW2334	59730	BAND, MARKER	EA	2



TAG IDENT CHART	
"A" TAG	15942 ASSY 1951-1-4688-1 MFR 28815 W311
"B" TAG	W311P1 AN/USM-435 (J11)
"C" TAG	W311P2

Figure C-19. Special Purpose Cable Assembly W311

SECTION V. SPECIAL TOOLS LIST

(1) ILLUSTRATION FIG NO.	(2) ILLUSTRATION ITEM NO.	(3) SMR CODE	(4) NATIONAL STOCK NUMBER	(5) PART NUMBER	(6) FSCM	(7) DESCRIPTION USABLE ON CODE	(8) U/M	(9) QTY INC IN UNIT
C-7		XBFFD	6625-01-038-5702	1951-1-4754-1	15942	TEST SET, POWER SUPPLY AN/USM-435 (SEE TM 32-5811-018-14&P)	EA	1
C-8		XCFZZ	5865-01-070-6587	1951-1-1113-1	15942	CABLE KIT, POWER SUPPLY (SEE TM 32-5811-018-14&P)	EA	1

Section VI. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NATIONAL STOCK NUMBER INDEX

NATL STOCK NUM	FIGURE	ITEM	NATL STOCK NUM	FIGURE	ITEM
	C-1			C-3	15A
	C-1	1		C-3	16
	C-1	2		C-3	17
	C-1	6		C-3	18
	C-1	8		C-3	20
	C-1	10		C-3	21
	C-1	12		C-3	21A
	C-1	13		C-3	23
	C-1	14		C-3	24
	C-1	15A		C-3	28
	C-1	16		C-3	30
	C-1	18		C-3	30A
	C-1	18A		C-3	31
	C-1	21		C-3	36
	C-1	25		C-3	37
	C-1	27		C-3	42
	C-1	27A		C-3	43
	C-1	28		C-3	43A
	C-1	33		C-3	44
	C-1	34		C-3	46
	C-1	36		C-3	49
	C-1	37		C-3	50
	C-1	38		C-3	51
	C-1	40		C-3	52
	C-1	41		C-3	57
	C-1	42		C-3	66
	C-1	44		C-3	66A
	C-1	47		C-3	67E
	C-1	48		C-4	1
	C-1	49		C-5	
	C-1	50		C-5	1
	C-1	51		C-5	2
	C-1	56		C-5	6
	C-1	64		C-5	8
	C-1	64A		C-5	10
	C-1	65B		C-5	12
	C-1	69		C-5	13
	C-2	1		C-5	14
	C-3			C-5	15A
	C-3	1		C-5	16
	C-3	2		C-5	18
	C-3	6		C-5	19
	C-3	8		C-5	19A
	C-3	10		C-5	21
	C-3	12		C-5	22
	C-3	13		C-5	26
	C-3	14		C-5	28

NATIONAL STOCK NUMBER INDEX

NATL STOCK NUM	FIGURE	ITEM	NATL STOCK NUM	FIGURE	ITEM
	C-5	28A	5305-00-066-7327	C-5	15B
	C-5	29	5305-00-210-5162	C-1	20
	C-5	34	5305-00-210-5162	C-3	29A
	C-5	35	5305-00-210-5162	C-5	27
	C-5	37	5305-00-225-6400	C-1	32A
	C-5	37A	5305-00-225-6400	C-3	35A
	C-5	37B	5305-00-225-6400	C-5	33A
	C-5	38	5305-00-372-9985	C-1	11
	C-5	39	5305-00-372-9985	C-3	11
	C-5	41	5305-00-372-9985	C-5	11
	C-5	42	5305-01-040-5484	C-1	26
	C-5	44	5305-01-040-5484	C-3	29
	C-5	47	5305-01-040-5484	C-5	27A
	C-5	48	5305-01-055-3758	C-1	57
	C-5	49	5305-01-055-3758	C-3	58
	C-5	50	5305-01-055-3758	C-5	58
	C-5	51	5305-01-071-3852	C-1	4
	C-5	52	5305-01-071-3852	C-1	4
	C-5	57	5305-01-071-3852	C-1	4A
	C-5	64	5305-01-071-3852	C-3	4
	C-5	64A	5305-01-071-3852	C-5	4
	C-5	65B	5305-01-082-5321	C-1	37
	C-5	1	5305-01-082-5321	C-3	43
3460-00-876-2922	C-1	60	5305-01-082-5321	C-5	37A
3460-00-876-2922	C-5	62	5305-01-138-7228	C-1	8
3460-00-876-2922	C-5	60	5305-01-138-7228	C-3	8
4140-00-034-7482	C-1	29	5305-01-138-7228	C-5	8
4140-00-034-7482	C-3	32	5307-00-431-7448	C-1	54
4140-00-034-7482	C-5	30	5307-00-431-7448	C-3	55
5305-00-054-5647	C-1	22	5307-00-431-7448	C-5	55
5305-00-054-5647	C-3	25	5307-00-721-3980	C-1	65
5305-00-054-5647	C-5	23	5307-00-721-3980	C-3	67
5305-00-054-5648	C-1	31	5307-00-721-3980	C-5	65
5305-00-054-5648	C-3	34	5310-00-071-0199	C-1	35C
5305-00-054-5648	C-5	32	5310-00-071-0199	C-3	41
5305-00-054-5653	C-1	43	5310-00-071-0199	C-5	34C
5305-00-054-5653	C-3	45	5310-00-073-9190	C-3	37
5305-00-054-5653	C-5	43	5310-00-073-9190	C-5	35
5305-00-054-6671	C-1	61	5310-00-208-3786	C-1	17D
5305-00-054-6671	C-3	63	5310-00-208-3786	C-1	46
5305-00-054-6671	C-5	61	5310-00-208-3786	C-3	15E
5305-00-056-9961	C-1	39	5310-00-208-3786	C-5	15E
5305-00-056-9961	C-3	27A	5310-00-208-3786	C-3	48
5305-00-056-9961	C-5	53A	5310-00-208-3786	C-5	46
5305-00-066-7325	C-1	51A	5310-00-209-1239	C-1	65C
5305-00-066-7325	C-3	52A	5310-00-209-1239	C-3	67C
5305-00-066-7325	C-5	40	5310-00-209-1239	C-5	65C
5305-00-066-7327	C-1	17A	5310-00-589-7962	C-1	35A
5305-00-066-7327	C-3	15B	5310-00-589-7962	C-3	39

NATIONAL STOCK NUMBER INDEX

NATL STOCK NUM	FIGURE	ITEM
5310-00-589-7962	C-5	34A
5310-00-595-6761	C-1	5
5310-00-595-6761	C-3	5
5310-00-595-6761	C-5	5
5310-00-619-1148	C-1	65D
5310-00-619-1148	C-3	67D
5310-00-619-1148	C-5	65D
5310-00-722-5998	C-1	17B
5310-00-722-5998	C-3	15C
5310-00-722-5998	C-5	15C
5310-00-880-5978	C-1	62
5310-00-880-5978	C-3	64
5310-00-880-5978	C-5	62
5310-00-929-6395	C-1	17C
5310-00-929-6395	C-3	15D
5310-00-929-6395	C-5	15D
5310-00-933-8118	C-1	24
5310-00-933-8118	C-3	26
5310-00-933-8118	C-5	25
5310-00-067-9589	C-1	63
5310-00-067-9589	C-3	65
5310-00-067-9589	C-5	63
5320-00-117-6010	C-1	35
5320-00-117-6010	C-3	38
5320-00-117-6010	C-5	36
5325-00-074-3301	C-1	75
5325-00-074-3301	C-3	79
5325-00-074-3301	C-5	71
5330-01-016-9394	C-1	70
5330-01-016-9394	C-3	74
5330-01-033-0334	C-1	76
5330-01-033-0334	C-3	80
5330-01-033-0334	C-5	72
5340-00-759-6438	C-1	35B
5340-00-759-6438	C-3	40
5340-00-759-6438	C-5	34B
5340-00-922-1858	C-1	19
5340-00-922-1858	C-3	22
5340-00-922-1858	C-5	20
5340-00-984-6629	C-1	30
5340-00-984-6629	C-3	33
5340-00-984-6629	C-5	31
5340-01-103-0189	C-1	56
5340-01-103-0189	C-3	57
5340-01-103-0189	C-5	57
5821-00-140-2728	C-5	7
5841-00-471-1650	C-1	17
5841-00-471-1650	C-3	19
5841-00-471-1650	C-5	17
5865-01-115-9151	C-1	
5865-01-115-9152	C-3	
5865-01-115-9153	C-5	
5865-01-140-2728	C-1	9
5865-01-140-2728	C-3	9
5920-01-120-8641	C-1	7
5930-00-308-7402	C-1	45
5930-00-308-7402	C-3	47
5930-00-308-7402	C-5	45
5935-01-064-7840	C-1	66
5935-01-064-9210	C-1	59
5935-01-065-6390	C-1	52
5935-01-065-6391	C-1	55
5935-01-065-6392	C-1	58
5935-01-065-6393	C-3	69
5935-01-065-6394	C-3	60
5935-01-065-6395	C-3	68
5935-01-065-6396	C-5	53
5935-01-065-6398	C-5	66
5935-01-065-7470	C-3	59
5935-01-065-7472	C-1	67
5935-01-065-8004	C-3	53
5935-01-066-1945	C-3	56
5935-01-066-1946	C-3	61
5935-01-066-1947	C-5	59
5940-00-143-4771	C-3	67A
5940-00-143-4780	C-3	67B
5940-00-143-4780	C-5	65A
5940-00-155-7686	C-3	54
5940-00-155-7686	C-5	54
5940-00-433-0983	C-1	15
5940-00-433-0983	C-3	15
5940-00-433-0983	C-5	15
6110-00-489-3813	C-3	7
6110-00-489-3813	C-5	9
6130-01-082-6807	C-1	16
6130-01-082-6807	C-3	17
6130-01-082-6807	C-5	16
6130-01-082-6808	C-3	20
6130-01-082-7819	C-3	16
6130-01-084-0996	C-1	13
6130-01-084-3705	C-3	13
6645-00-255-1371	C-1	32
6645-00-255-1371	C-3	35
6645-00-255-1371	C-5	33
9905-01-120-6205	C-1	28
9905-01-120-6205	C-3	31
9905-01-120-6205	C-5	29
9905-01-159-6447	C-1	73
9905-01-159-6447	C-4	1

PART NUMBER TO FIGURE AND ITEM NUMBER INDEX

PART NUMBER	FSCM	FIGURE	ITEM	PART NUMBER	FSCM	FIGURE	ITEM
CC150HY3-5-22-32	15755	C-3	20	MS15795-803	96906	C-5	24
CC150HY3-5-22-32	15755	C-3	18	MS15795-805	96906	C-1	17B
CFHC032-8	46384	C-1	65	MS15795-805	96906	C-3	15C
CFHC032-8	46384	C-3	67	MS15795-805	96906	C-5	15C
CFHC032-8	46384	C-5	65	MS15795-807	96906	C-1	62
CFHC440-4	46384	C-1	54	MS15795-807	96906	C-3	64
CFHC440-4	46384	C-3	55	MS15795-807	96906	C-5	62
CFHC440-4	46384	C-5	55	MS15795-808	96906	C-1	65D
C100HY1-8-22-32	15755	C-5	13	MS15795-808	96906	C-3	67D
C100HY7-5-22-32	15755	C-3	16	MS15795-808	96906	C-5	65D
C150HY1-2-22-32	15755	C-1	13	MS17322-10	96906	C-1	32
C360HY0-6-22-32	15755	C-3	13	MS17322-10	96906	C-3	35
C50HY10-22-32	15755	C-1	16	MS17322-10	96906	C-5	33
C50HY10-22-32	15755	C-3	17	MS20426AD2-3	96906	C-1	35
C50HY10-22-32	15755	C-5	16	MS20426AD2-3	96906	C-3	38
C5074135-1	57958	C-1	64A	MS20426AD2-3	96906	C-5	36
C5074135-2	57958	C-3	66A	MS20426AD2-5	96906	C-1	3
C5074135-3	57958	C-5	64A	MS20426AD2-5	96906	C-3	3
C5074678	57958	C-2	10	MS20426AD2-5	96906	C-5	3
D-791806	30885	C-1	4A	MS21266-2N	96906	C-1	75
FE440	46384	C-1	35A	MS21266-2N	96906	C-3	79
FE440	46384	C-3	39	MS21266-2N	96906	C-5	54
FE440	46384	C-5	34A	MS24693C28	96906	C-1	17A
FE632	46384	C-1	25A	MS24693C28	96906	C-3	15B
FE632	46384	C-3	28A	MS24693C28	96906	C-5	15B
FE632	46384	C-5	27B	MS24693C3	96906	C-1	32A
FE832	46384	C-1	35B	MS24693C3	96906	C-3	35A
FE832	46384	C-3	40	MS24693C3	96906	C-5	33A
FE832	46384	C-5	34B	MS24693C4	96906	C-1	39
HDH4	94867	C-1	60	MS24693C4	96906	C-3	27A
HDH4	94867	C-3	62	MS24693C4	96906	C-5	53A
HDH4	94867	C-5	60	MS24693C5	96906	C-1	51A
H01-3	15653	C-1	65E	MS24693C5	96906	C-3	52A
H01-3	15653	C-3	67E	MS24693C5	96906	C-5	40
H01-3	15653	C-5	65B	MS25036-103	96906	C-1	65A
LAC440-2	46384	C-1	35C	MS25036-103	96906	C-2	2
LAC440-2	46384	C-3	41	MS25036-103	96906	C-3	67A
LAC440-2	46384	C-5	34C	MS25036-103	96906	C-4	8
MK1301-04	15653	C-1	34	MS25036-108	96906	C-1	65B
MK1301-04	15653	C-3	37	MS25036-108	96906	C-2	4
MK1301-04	15653	C-5	35	MS25036-108	96906	C-3	67B
MK2301-04	15653	C-1	49	MS25036-108	96906	C-4	9
MK2301-04	15653	C-3	50	MS25036-108	96906	C-5	65A
MK2301-04	15653	C-5	50	MS25036-108	96906	C-6	3
MS15795-802	96906	C-1	5	MS27508E12F8P	96906	C-1	66
MS15795-802	96906	C-3	5	MS27508E12F8P	96906	C-2	1
MS15795-802	96906	C-5	5	MS27508E12F8PA	96906	C-3	68
MS15795-803	96906	C-1	23	MS27508E12F8PA	96906	C-4	7
MS15795-803	96906	C-3	27	MS27508E12F8PB	96906	C-5	66

PART NUMBER TO FIGURE AND ITEM NUMBER INDEX

PART NUMBER	FSCM	FIGURE	ITEM
MS27508E12F8PB	96906	C-6	1
MS27508E12F98S	96906	C-1	52
MS27508E12F98S	96906	C-2	11
MS27508E14F15S	96906	C-1	58
MS27508E14F15S	96906	C-2	5
MS27508E14F15SA	96906	C-3	60
MS27508E14F15SA	96906	C-4	11
MS27508E14F15SB	96906	C-5	56
MS27508E14F15SB	96906	C-6	7
MS27508E16F26S	96906	C-3	56
MS27508E16F26S	96906	C-4	3
MS27508E16F6P	96906	C-1	59
MS27508E16F6P	96906	C-2	3
MS27508E16F6PA	96906	C-3	61
MS27508E16F6PA	96906	C-4	10
MS27508E16F6PB	96906	C-5	59
MS27508E16F6PB	96906	C-6	2
MS27508E20F16P	96906	C-1	67
MS27508E20F16P	96906	C-2	12
MS27508E20F16S	96906	C-3	59
MS27508E20F16S	96906	C-4	12
MS27508E20F16SA	96906	C-3	53
MS27508E20F16SA	96906	C-4	5
MS27508E20F16SB	96906	C-3	69
MS27508E20F16SB	96906	C-4	6
MS27508E22F21S	96906	C-1	55
MS27508E22F21S	96906	C-2	9
MS27508E22F21SA	96906	C-5	53
MS27508E22F21SA	96906	C-6	8
MS3367-1-9	96906	C-2	7
MS3367-1-9	96906	C-4	2
MS3367-1-9	96906	C-6	5
MS35335-60	96906	C-1	65C
MS35335-60	96906	C-1	65F
MS35335-60	96906	C-3	67C
MS35335-60	96906	C-5	65C
MS35338-135	96906	C-3	26
MS35338-135	96906	C-5	25
MS35338-135	96906	C-7	7
MS35338-135	96906	C-1	24
MS35338-135	96906	C-3	26
MS35338-135	96906	C-5	25
MS35338-136	96906	C-7	71
MS35338-136	96906	C-1	17C
MS35338-136	96906	C-3	15D
MS35338-136	96906	C-5	15D
MS35338-137	96906	C-1	63
MS35338-137	96906	C-3	65
MS35338-137	96906	C-5	63
MS35338-137	96906	C-7	57
MS35338-137	96906	C-1	63
MS35338-137	96906	C-3	65
MS35338-137	96906	C-5	63
MS35338-138	96906	C-7	16
MS51957-12	96906	C-7	5
MS51957-13	96906	C-1	22
MS51957-13	96906	C-3	25
MS51957-13	96906	C-5	23
MS51957-13	96906	C-7	67
MS51957-13	96906	C-1	22
MS51957-13	96906	C-3	25
MS51957-13	96906	C-5	23
MS51957-14	96906	C-1	31
MS51957-14	96906	C-3	34
MS51957-14	96906	C-5	32
MS51957-14	96906	C-1	31
MS51957-14	96906	C-3	34
MS51957-14	96906	C-5	32
MS51957-15	96906	C-7	62
MS51957-19	96906	C-1	43
MS51957-19	96906	C-3	45
MS51957-19	96906	C-5	43
MS51957-19	96906	C-1	43
MS51957-19	96906	C-3	45
MS51957-19	96906	C-5	43
MS51957-29	96906	C-7	77
MS51957-30	96906	C-7	78
MS51957-35	96906	C-7	81
MS51957-44	96906	C-7	55
MS51957-46	96906	C-1	61
MS51957-46	96906	C-3	63
MS51957-46	96906	C-5	61
MS51957-46	96906	C-1	61
MS51957-46	96906	C-3	63
MS51957-46	96906	C-5	61
MS51958-65	96906	C-7	14
MS77066-1	96906	C-1	53
MS77066-1	96906	C-2	8
MS77066-1	96906	C-3	54
MS77066-1	96906	C-5	54
MS77066-1	96906	C-1	53
MS77066-1	96906	C-3	54
MS77066-1	96906	C-4	4
MS77066-1	96906	C-5	54
MS77066-1	96906	C-6	6
MS91528-1B2B	96906	C-7	2
M24236-1-0525	81349	C-1	45
M24236-1-0525	81349	C-3	47

PART NUMBER TO FIGURE AND ITEM NUMBER INDEX

PART NUMBER	FSCM	FIGURE	ITEM	PART NUMBER	FSCM	FIGURE	ITEM
M24236-1-0525	81349	C-5	45	NAS1190E3P5L	80205	C-1	14
M24236-1-0525	81349	C-1	45	NAS1190E3P5L	80205	C-3	14
M24236-1-0525	81349	C-3	47	NAS1190E3P5L	80205	C-5	14
M24236-1-0525	81349	C-5	45	NAS671C4	80205	C-1	46
M30924-1-16-2C	81349	C-7	85	NAS671C4	80205	C-3	48
M39012-22-0001	81349	C-7	10	NAS671C4	80205	C-5	46
M39024-10-02	81349	C-7	8	NAS671C4	80205	C-7	20
M39024-10-03	81349	C-7	12	NAS671C4	80205	C-1	46
NAS1189E04P4L	80205	C-1	20	NAS671C4	80205	C-3	48
NAS1189E04P4L	80205	C-3	29A	NAS671C4	80205	C-5	46
NAS1189E04P4L	80205	C-5	27	NAS671C6	80205	C-7	70
NAS1189E04P4L	80205	C-1	20	NAS671C6	80205	C-1	17D
NAS1189E04P4L	80205	C-3	29A	NAS671C6	80205	C-3	15E
NAS1189E04P4L	80205	C-5	27	NAS671C6	80205	C-5	15E
NAS1189E04P7L	80205	C-1	11	OVP12-24	15755	C-1	7
NAS1189E04P7L	80205	C-3	11	OVP12-24	15755	C-1	7
NAS1189E04P7L	80205	C-5	11	OVP26-50	15755	C-3	7
NAS1189E04P7L	80205	C-7	83	OVP26-50	15755	C-5	9
NAS1189E04P7L	80205	C-1	11	OVP26-50	15755	C-3	7
NAS1189E04P7L	80205	C-3	11	OVP26-50	15755	C-5	9
NAS1189E04P7L	80205	C-5	11	OVP5-11	15755	C-1	9
NAS1189E06P5L	80205	C-1	26	OVP5-11	15755	C-3	9
NAS1189E06P5L	80205	C-3	29	OVP5-11	15755	C-5	7
NAS1189E06P5L	80205	C-5	27A	OVP5-11	15755	C-1	9
NAS1189E06P5L	80205	C-7	82	OVP5-11	15755	C-3	9
NAS1189E06P5L	80205	C-1	26	OVP5-11	15755	C-5	7
NAS1189E06P5L	80205	C-3	29	R-10460-1/8THK	71643	C-5	53
NAS1189E06P5L	80205	C-5	27A	R-10460-3/16THK	71643	C-1	70
NAS1189E06P7L	80205	C-1	37	R-10460-3/16THK	71643	C-3	74
NAS1189E06P7L	80205	C-3	43	RER55F15R0P	81349	C-7	59
NAS1189E06P7L	80205	C-5	37A	RER55F71R5P	81349	C-7	60
NAS1189E06P7L	80205	C-1	37	RER75F6R19P	81349	C-7	63
NAS1189E06P7L	80205	C-3	43	RE77GR562	81349	C-7	58
NAS1189E06P7L	80205	C-5	37A	RE77G1R54	81349	C-7	61
NAS1189E08P6L	80205	C-1	57	RE77G4R99	81349	C-7	64
NAS1189E08P6L	80205	C-3	58	SE26XF01S	81349	C-7	73
NAS1189E08P6L	80205	C-5	58	SE9F0908A1-5-12	07418	C-10	2
NAS1189E08P6L	80205	C-1	57	SE9F0908A1-5-12	07418	C-13	2
NAS1189E08P6L	80205	C-3	58	SE9F0908A1-5-12	07418	C-16	2
NAS1189E08P6L	80205	C-5	58	SE9F1208A1-5-12	07418	C-18	2
NAS1190E03P5L	80205	C-1	14	SE9F1508A1-5-12	07418	C-11	2
NAS1190E03P5L	80205	C-3	14	SE9F1508A1-5-12	07418	C-14	2
NAS1190E03P5L	80205	C-5	14	SE9F1508A1-5-12	07418	C-17	2
NAS1190E06P5L	80205	C-1	8	SE9F1508A1-5-12	07418	C-19	2
NAS1190E06P5L	80205	C-3	8	SE9F2212A1-5-12	07418	C-12	2
NAS1190E06P5L	80205	C-5	8	SE9F2516A1-5-12	07418	C-9	2
NAS1190E06P5L	80205	C-1	8	SE9F2526A1-5-12	07418	C-15	2
NAS1190E06P5L	80205	C-3	8	S0-1049-8772	35344	C-7	51
NAS1190E06P5L	80205	C-5	8	TBC1	09922	C-1	19

PART NUMBER TO FIGURE AND ITEM NUMBER INDEX

PART NUMBER	FSCM	FIGURE	ITEM	PART NUMBER	FSCM	FIGURE	ITEM
TBC1	09922	C-3	22	YTB16-1	09922	C-2	2
TBC1	09922	C-4	20	YTB16-1	09922	C-4	2
TBC1	09922	C-1	19	YTB16-1	09922	C-6	2
TBC1	09922	C-3	22	YTB20-2	09922	C-2	1
TBC1	09922	C-5	20	YTB20-2	09922	C-2	1
TBS16-8-1	09922	C-1	15	YTB20-2	09922	C-2	1
TBS16-8-1	09922	C-3	15	YTB20-2	09922	C-2	1
TBS16-8-1	09922	C-5	15	YTB20-2	09922	C-4	1
TBS16-8-1	09922	C-1	15	YTB20-2	09922	C-6	1
TBS16-8-1	09922	C-3	15	026981	82877	C-1	29
TBS16-8-1	09922	C-5	15	026981	82877	C-3	32
TBS20-8-1	09922	C-1	17	026981	82877	C-5	30
TBS20-8-1	09922	C-3	19	026981	82877	C-1	29
TBS20-8-1	09922	C-5	17	026981	82877	C-3	32
TBS20-8-1	09922	C-1	17	026981	82877	C-5	30
TBS20-8-1	09922	C-3	19	0423-1-3008-1	15942	C-1	44
TBS20-8-1	09922	C-5	17	0423-1-3008-1	15942	C-3	46
TC342	59730	C-7	26	0423-1-3008-1	15942	C-5	44
TMS-CM-1/2-4H-9	06090	C-1	73	0423-1-3008-1	15942	C-1	44
TMS-CM-1/2-4H-9	06090	C-2	6	0423-1-3008-1	15942	C-3	46
TMS-CM-1/2-4H-9	06090	C-3	70	0423-1-3008-1	15942	C-5	44
TMS-CM-1/2-4H9	06090	C-4	1	0423-1-4001-1	15942	C-3	2A
TMS-CM-1/2-9	06090	C-6	4	0423-1-4001-1	15942	C-5	2A
VPC241	08730	C-7	13	0423-1-4001-1	15942	C-1	2A
WTW1334	59730	C-9	3	0423-1-4061-1	15942	C-1	10A
WTW1334	59730	C-10	3	0423-1-4061-1	15942	C-3	10A
WTW1334	59730	C-11	3	0423-1-4061-1	15942	C-5	10A
WTW1334	59730	C-12	3	0423-1-4062-1	15942	C-1	42A
WTW1334	59730	C-13	3	0423-1-4062-1	15942	C-3	44A
WTW1334	59730	C-14	3	0423-1-4062-1	15942	C-5	42A
WTW1334	59730	C-15	3	0423-1-4133-1	15942	C-1	6
WTW1334	59730	C-16	3	0423-1-4133-1	15942	C-3	6
WTW1334	59730	C-17	3	0423-1-4133-1	15942	C-5	6
WTW1334	59730	C-18	3	0423-1-4134-1	15942	C-1	12
WTW1334	59730	C-19	3	0423-1-4134-1	15942	C-3	12
WTW2334	59730	C-9	4	0423-1-4134-1	15942	C-5	12
WTW2334	59730	C-10	4	045871	10003	C-7	45
WTW2334	59730	C-11	4	06-0201-1348	28817	C-1	2
WTW2334	59730	C-12	4	06-0201-1348	28817	C-3	2
WTW2334	59730	C-13	4	06-0201-1348	28817	C-5	2
WTW2334	59730	C-14	4	06-0201-1348	28817	C-1	2
WTW2334	59730	C-15	4	06-0201-1348	28817	C-3	2
WTW2334	59730	C-16	4	06-0201-1348	28817	C-5	2
WTW2334	59730	C-17	4	06-0302-1886	28817	C-1	42
WTW2334	59730	C-18	4	06-0302-1886	28817	C-3	44
WTW2334	59730	C-19	4	06-0302-1886	28817	C-5	42
YTB16-1	09922	C-2	2	06-0302-1886	28817	C-1	42
YTB16-1	09922	C-4	2	06-0302-1886	28817	C-3	44
YTB16-1	09922	C-6	2	06-0302-1886	28817	C-5	42

PART NUMBER TO FIGURE AND ITEM NUMBER INDEX

PART NUMBER	FSCM	FIGURE	ITEM
06-0302-1887	28817	C-1	10
06-0302-1887	28817	C-3	10
06-0302-1887	28817	C-5	10
06-0302-1887	28817	C-1	10
06-0302-1887	28817	C-3	10
06-0302-1887	28817	C-5	10
10350SS0832-7	06540	C-1	56
10350SS0832-7	06540	C-3	57
10350SS0832-7	06540	C-5	57
10350SS0832-7	06540	C-1	56
10350SS0832-7	06540	C-3	57
10350SS0832-7	06540	C-5	57
10648EL5-1	08719	C-7	33
1526-019-105	76374	C-7	31
1951-1-1113-1	15942	C-8	
1951-1-2039-1	15942	C-1	28
1951-1-2039-1	15942	C-3	31
1951-1-2039-1	15942	C-5	29
1951-1-2039-1	15942	C-1	28
1951-1-2039-1	15942	C-3	31
1951-1-2039-1	15942	C-5	29
1951-1-2039-1	15942	C-7	32
1951-1-2427-1	15942	C-7	66
1951-1-3000-1	15942	C-1	36
1951-1-3000-1	15942	C-3	42
1951-1-3000-1	15942	C-5	37
1951-1-3000-1	15942	C-1	36
1951-1-3000-1	15942	C-3	42
1951-1-3000-1	15942	C-5	37
1951-1-3000-2	15942	C-1	41
1951-1-3000-2	15942	C-3	43A
1951-1-3000-2	15942	C-5	37B
1951-1-3000-2	15942	C-1	41
1951-1-3000-2	15942	C-3	43A
1951-1-3000-2	15942	C-5	37B
1951-1-3001-1	15942	C-1	4
1951-1-3001-1	15942	C-3	4
1951-1-3001-1	15942	C-5	4
1951-1-3001-1	15942	C-1	4
1951-1-3001-1	15942	C-3	4
1951-1-3001-1	15942	C-5	4
1951-1-3048-3	15942	C-1	64
1951-1-3048-3	15942	C-1	64
1951-1-3048-4	15942	C-3	66
1951-1-3048-4	15942	C-3	66
1951-1-3048-5	15942	C-5	64
1951-1-3048-5	15942	C-5	64
1951-1-3053-1	15942	C-1	47
1951-1-3053-1	15942	C-3	49
1951-1-3053-1	15942	C-5	47
1951-1-3053-1	15942	C-1	47
1951-1-3053-1	15942	C-3	49
1951-1-3053-1	15942	C-5	47
1951-1-3054-1	15942	C-1	18
1951-1-3054-1	15942	C-3	21
1951-1-3054-1	15942	C-5	19
1951-1-3054-1	15942	C-1	18
1951-1-3054-1	15942	C-3	21
1951-1-3054-1	15942	C-5	19
1951-1-3314-6	15942	C-7	9
1951-1-3334-1	15942	C-7	74
1951-1-4010-1	15942	C-1	
1951-1-4011-1	15942	C-3	
1951-1-4012-1	15942	C-5	
1951-1-4077-2	15942	C-3	51
1951-1-4077-3	15942	C-1	1
1951-1-4077-3	15942	C-3	1
1951-1-4077-3	15942	C-5	1
1951-1-4077-3	15942	C-1	1
1951-1-4077-3	15942	C-3	1
1951-1-4077-3	15942	C-5	1
1951-1-4077-4	15942	C-1	50
1951-1-4077-4	15942	C-3	72
1951-1-4077-4	15942	C-5	51
1951-1-4077-4	15942	C-1	50
1951-1-4077-4	15942	C-3	51
1951-1-4077-4	15942	C-5	51
1951-1-4106-1	15942	C-1	51
1951-1-4106-1	15942	C-1	51
1951-1-4108-1	15942	C-3	52
1951-1-4108-1	15942	C-3	52
1951-1-4109-1	15942	C-5	52
1951-1-4109-1	15942	C-5	52
1951-1-4286-1	15942	C-1	27
1951-1-4286-4	15942	C-1	27
1951-1-4287-1	15942	C-3	30
1951-1-4287-4	15942	C-3	30
1951-1-4288-1	15942	C-5	28
1951-1-4288-1	15942	C-5	28
1951-1-4678-1	15942	C-8	1
1951-1-4679-1	15942	C-8	2
1951-1-4680-1	15942	C-8	3
1951-1-4681-1	15942	C-8	4
1951-1-4682-1	15942	C-8	5
1951-1-4683-1	15942	C-8	6
1951-1-4684-1	15942	C-8	7
1951-1-4685-1	15942	C-8	8
1951-1-4686-1	15942	C-8	9

PART NUMBER TO FIGURE AND ITEM NUMBER INDEX

PART NUMBER	FSCM	FIGURE	ITEM
1951-1-4687-1	15942	C-8	10
1951-1-4688-1	15942	C-8	11
1951-1-4754-1	15942	C-7	
1951-1-4776-1	15942	C-7	38
1951-1-4776-2	15942	C-7	46
1951-1-4809-1	15942	C-7	65
1951-1-4810-1	15942	C-7	49
1951-1-5000-1	15942	C-1	33
1951-1-5000-1	15942	C-3	36
1951-1-5000-1	15942	C-5	34
1951-1-5000-1	15942	C-1	33
1951-1-5000-1	15942	C-3	36
1951-1-5000-1	15942	C-5	34
1951-1-5013-1	15942	C-1	25
1951-1-5013-1	15942	C-3	28
1951-1-5013-1	15942	C-5	26
1951-1-5013-1	15942	C-1	25
1951-1-5013-1	15942	C-3	28
1951-1-5013-1	15942	C-5	26
1951-1-5082-1	15942	C-7	1
1951-1-5084-1	15942	C-7	44
271166	62877	C-1	30
271166	62877	C-3	33
271166	62877	C-5	31
271166	82877	C-1	30
271166	82877	C-3	33
271166	82877	C-5	31
5R2-3	71268	C-7	43
5S3-2	71286	C-7	68
5S7-12	71286	C-7	69
5065647-1	57958	C-1	
5065648-1	57958	C-3	
5065649-1	57958	C-5	
5065650-1	57958	C-1	18A
5065650-1	57958	C-3	21A
5065650-1	57958	C-5	19A
5065659-1	57958	C-1	27A
5065660-1	57958	C-3	30A
5065661-1	57958	C-5	28A
599-2003-8	75382	C-1	15A
599-2003-8	75382	C-3	15A
599-2003-8	75382	C-5	15A
8215A0632-10A	06540	C-7	79
97-555-CDC	30817	C-1	76
97-555-CDC	30817	C-3	80
97-555-CDC	30817	C-5	55

APPENDIX D
EXPENDABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

D-1. SCOPE

This appendix lists expendable supplies and materials you will need to operate and maintain the power supplies. These items are authorized to you by CTA 50-970, Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items).

D-2. EXPLANATION OF COLUMNS

a. Column(1)- Item number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use cleaning compound, item 5, App. D").

b. Column(2)- Level. This column identifies the lowest level of maintenance that requires the listed item.

(enter as applicable)

C - Operator/Crew
O - Organizational Maintenance
F - Direct Support Maintenance
H - General Support Maintenance

c. Column(3)- National Stock Number. This is the National stock number assigned to the item; use it to request or requisition the item.

d. Column(4)- Description. Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Federal Supply Code for Manufacturer (FSCM) in parentheses followed by the part number.

e. Column(5)- Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NO.	(2) LEVEL	(3) NSN	(4) DESCRIPTION	(5) U/M
1	H	8040-00-160-8489	Adhesive, clear, type 608	
2	H	8040-00-225-4568	Adhesive, clear, type 732 translucent	
3	H	8029-00-246-8806	Brush, soft	ea
4	H	8305-00-267-3015	Cloth, lint free	ro
5	H	6850-00-281-4033	Compound, silicone, type DC340	
6	H	5330-01-033-0334	Contact strip	in
7	H		Enamel, semigloss, MIL-E-15090, class 2, type III, color no. 24410	qt
8	H	8415-00-200-7013	Gloves, rubber heavy duty	pr
9	H		Sandpaper No. 000	
10	H		Sheet, rubber, 3/16-inch thick	
11	H		Sheet, rubber, 1/8-inch thick	
12	H	*	Sleeving, insulated, heatshrink 0.187ID black	in
13	H	*	Sleeving, insulated, heatshrink 0.187ID white	in
14	H	*	Sleeving, insulated, heatshrink 0.250ID white	in
15	H	*	Sleeving, insulated, heatshrink 0.500ID white	in
16	H	3439-01-008-7580	Solder, SN63WRMAP3	ro
17	H	4020-00-656-1125	Tape, lacing, size 4 black, MIL-T-713	ro
18	H	7510-00-949-9804	Tape, pressure sensitive, type 467	in
19	H	6850-00-984-5853	Trichlorotrifluoroethane, MIL-C-18718	gl
20	H		Wire, electrical, 16 AWG, black	in
21	H		Wire, electrical, 16 AWG, red	in
22	H		Wire, electrical, 16 AWG, violet	in
23	H		Wire, electrical, 18 AWG	in
24	H		Wire, electrical, 20 AWG, black	in
25	H		Wire, electrical, 20 AWG, gray	in
26	H		Wire, electrical, 20 AWG, red	in
27	H		Wire, electrical, 20 AWG, violet	in
28	H		Enamel, Glyptol, Red, P/N 1201, MFG. Code 08800	

*Obtain applicable size length from kit, Heatshrink Tubing, FIT 221MSI, NSN 5970-01-026-1877.

INDEX

	Paragraph Figure/Table	Page
A		
Administrative Storage	1-4	1-1
AC Interlock, Detailed Theory of Operation	5-7	5-3
Adjustment Procedures		
Overvoltage Protector Module	6-12b	6-24
Power Supply Voltage	6-12a	6-21
Assembly Procedures	6-8b,	6-15
B		
Blower, Detailed Theory of Operation	5-7	5-3
C		
Cleaning	6-7b	6-7
Controls and Indicators	3-2	3-1
	T3-1	3-2
D		
Daily Preventative Maintenance Checks and Services	4-5,	4-2,
	T4-1	4-2
Data, Tabulated	1-9	1-14
DC-DC Converter Power Modules	5-5	5-2
DC Input Current Power	T1-6	1-14
Description and Data		
Description	1-7	1-4
Purpose and Use	1-6	1-3
Tabulated Data	1-9	1-14
Destruction of Army Material to Prevent Enemy Use	1-3	1-1
Differences Between Models	1-8	1-5
Disassembly Procedures	6-8a	6-8
E		
Elapsed Time Meter	5-7	5-3
F		
Functional Description		
Power Supplies	5-3a	5-1
Power Supply Test Set	5-3b	5-1

INDEX - Continued

	Paragraph Figure/Table	Page
I		
Input/Output Connections		
AN/USM-435	T1-5	1-11
PP-7292/USQ	T1-2	1-6
PP-7293/USQ	T1-3	1-7
PP-7294/USQ	T1-4	1-10
Installation Instructions		
Installation Instructions	2-4	2-1
Interconnections		
Power Supplies	2-5a	2-2
Power Supply Test Set	2-5b	2-2
Tools, Test Equipment and Materials Required for Installation	2-3	2-1
Interconnect Wiring List		7-1
Intermediate Support Maintenance		
Adjustment Procedures		
OVP Module	6-12b	6-24
Power Supply	6-12a	6-21
Assembly	6-8b,	6-15
Cleaning	6-7b	6-7
Disassembly	6-8a,	6-8,
Inspection	6-7a	6-7
Test Procedures	6-10	6-21
Tools and Equipment Required	6-3	6-1
Troubleshooting Procedures	6-5, T6-1	6-2 6-3
M		
Maintenance Forms and Records	1-2	1-1
Maintenance, Organizational		
Preventive Maintenance Checks and Services		
Daily Preventive Maintenance	4-5, T4-1	4-2, 4-2
Monthly Preventive Maintenance	4-6, T4-3	4-3, 4-3
Weekly Preventive Maintenance	4-5, T4-2	4-2, 4-3
Tools and Equipment Required	4-3	4-1
Troubleshooting	4-7	4-4
Mating Connector Types	T1-7	1-17

INDEX - Continued

	Paragraph Figure/Table	Page
O		
Operating Procedures	3-4	3-3
Operator Controls and Indicators	3-2	3-1
Organizational Maintenance Instructions		
Preventive Maintenance Checks and Services		
Daily Preventive Maintenance	4-5, T4-1	4-2, 4-2
Monthly Preventive Maintenance	4-6, T4-3,	4-3, 4-3
Weekly Preventive Maintenance	4-5, T4-2	4-2, 4-3
Tools and Equipment Required	4-3	4-1
Troubleshooting	4-7	4-4
Output Voltages	T1-1	1-4
OVP Module Adjustment Procedures	6-12b	6-24
P		
Power Supplies		
Data, Power Supply	T6-2	6-23
Description	1-7a	1-4
Differences between Models	1-8	1-5
Functional Description	5-3a	5-1
Input/Output Connections		
PP-7292/USQ	T1-2	1-6
PP-7293/USQ	T1-3	1-7
PP-7294/USQ	T1-4	1-10
Interconnections	2-5a	2-2
Maintenance	6-7	6-7
Purpose and Use	1-6	1-3
Wiring Diagram, Power Supply PP-7292/USQ	FO-1	
Wiring Diagram, Power Supply PP-7293/USQ	FO-2	
Wiring Diagram, Power Supply PP-7294/USQ	FO-3	
Power Supply Test Set		
Description	1-7b	1-4
Functional Description	5-3b	5-1
Input Output Connections	T1-5	1-11
Interconnections	2-5b	2-2
Maintenance	4-8	4-4
Photograph	F1-2	1-3
Purpose and Use	1-6	1-3
Operator Controls and Indicators	3-2, F3-1, T3-1	3-1, 3-1, 3-2
Test Setup	F6-2	6-22
Wiring Diagram, Power Supply Test Set AN/USM-435	FO-4	

INDEX - Continued

	Paragraph Figure/Table	Page
Procedures		
Test Procedures	6-10	6-21
Disassembly/Assembly	6-8	6-8
Adjustment Procedures	6-12	6-21
Operating Procedures	3-4	3-3
Troubleshooting Procedures	6-5, T6-1	6-2, 6-3
Purpose and Use	1-6	1-3
R		
Reporting Equipment Improvement Recommendations (EIRs)	1-5	1-3
S		
Service Upon Receipt of Material		
Checking Unpacked Equipment	2-2	2-1
Unpacking	2-1	2-1
T		
Tabulated Data	1-9	1-14
Theory of Operation		
AC Interlock	5-7	5-3
Blower	5-7	5-3
DC-DC Converter Power Modules	5-5	5-2
Elapsed Time Meter	5-7	5-3
Overvoltage Protectors	5-6	5-2
Thermal Switch	5-8	5-3
Tools and Equipment Required for Intermediate Support Maintenance	6-3	6-1
Tools and Equipment Required for Organizational Maintenance	4-3	4-1
Tools, Test Equipment, and Materials Required for Installation	2-3	2-1
Trouble Sectionalization Chart	T6-1	6-3
Troubleshooting	6-5	6-2
Typical Power Supply Applications	F1-3	1-5
W		
Weekly Preventive Maintenance Checks and Services	4-5, T4-2	4-2, 4-3

INDEX - Continued

	Paragraph Figure/Table	Page
Wiring Diagrams		
Power Supply Wiring Diagram PP-7292/USQ		FO-1
Power Supply Wiring Diagram PP-7293/USQ		FO-2
Power Supply Wiring Diagram PP-7294/USQ		FO-3
Power Supply Test Set AN/USM-431 Wiring Diagram		FO-4

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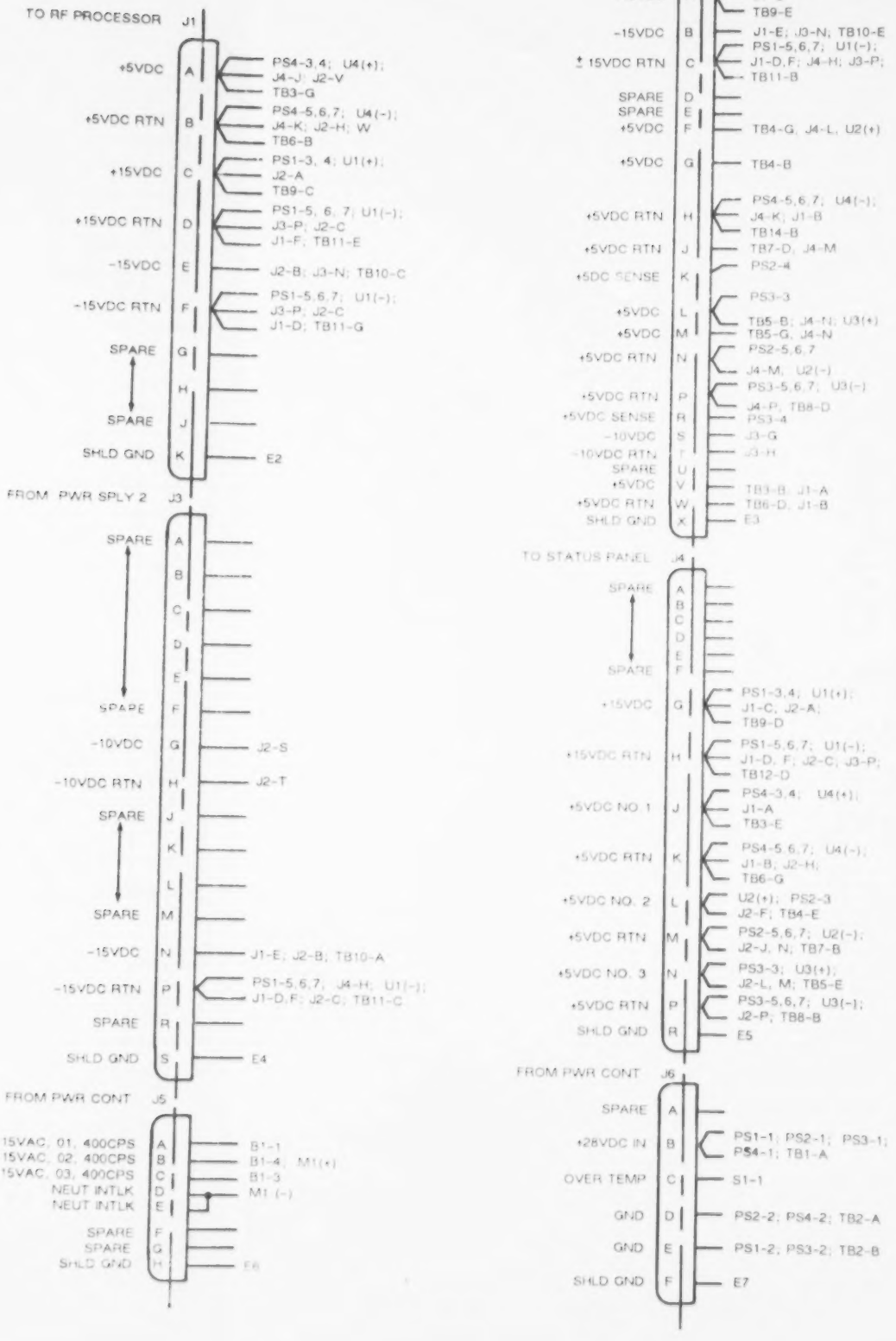

TO RF PROCESSOR J1
+5VDC A
PS4-3,4; U4(+); J4-J; J2-V; TB3-G
+5VDC RTN B
PS4-5,6,7; U4(-); J4-K; J2-H; W; TB6-B
+15VDC C
PS1-3, 4; U1(+); J2-A; TB9-C
+15VDC RTN D
PS1-5, 6, 7; U1(-); J3-P; J2-C; J1-F; TB11-E
-15VDC E
J2-B; J3-N; TB10-C
-15VDC RTN F
PS1-5,6,7; U1(-); J3-P; J2-C; J1-D; TB11-G
SPARE G
SPARE H
SPARE J
SHLD GND K
E2
FROM PWR SPLY 2 J3
SPARE A
SPARE B
SPARE C
SPARE D
SPARE E
SPARE F
-10VDC G
J2-S
-10VDC RTN H
J2-T
SPARE J
SPARE K
SPARE L
SPARE M
-15VDC N
J1-E; J2-B; TB10-A
-15VDC RTN P
PS1-5,6,7; J4-H; U1(-); J1-D,F; J2-C; TB11-C
SPARE R
SHLD GND S
E4
FROM PWR CONT J5
115VAC, 01, 400CPS A
B1-1
115VAC, 02, 400CPS B
B1-4; M1(+)
115VAC, 03, 400CPS C
B1-3
NEUT INTLK D
NEUT INTLK E
M1 (-)
SPARE F
SPARE G
SHLD GND H
E6
TO DF CONTROL J2
+15VDC A
PS1-3,4; U1(+); J1-C; TB9-E
-15VDC B
J1-E; J3-N; TB10-E
± 15VDC RTN C
PS1-5,6,7; U1(-); J1-D,F; J4-H; J3-P; TB11-B
SPARE D
SPARE E
+5VDC F
TB4-G, J4-L, U2(+)
+5VDC G
TB4-B
+5VDC RTN H
PS4-5,6,7; U4(-); J4-K; J1-B; TB14-B
+5VDC RTN J
TB7-D, J4-M
+5DC SENSE K
PS2-4
+5VDC L
PS3-3
+5VDC M
TB5-B; J4-N; U3(+)
+5VDC RTN N
TB5-G, J4-N
PS2-5,6,7; J4-M; U2(-)
+5VDC RTN P
PS3-5,6,7; U3(-); J4-P; TB8-D
+5VDC SENSE R
PS3-4
-10VDC S
J3-G
-10VDC RTN T
J3-H
SPARE U
+5VDC V
TB3-B; J1-A
+5VDC RTN W
TB6-D; J1-B
SHLD GND X
E3
TO STATUS PANEL J4
SPARE A
SPARE B
SPARE C
SPARE D
SPARE E
SPARE F
+15VDC G
PS1-3,4; U1(+); J1-C; J2-A; TB9-D
+15VDC RTN H
PS1-5,6,7; U1(-); J1-D, F; J2-C; J3-P; TB12-D
+5VDC NO. 1 J
PS4-3,4; U4(+); J1-A; TB3-E
+5VDC RTN K
PS4-5,6,7; U4(-); J1-B; J2-H; TB6-G
+5VDC NO. 2 L
U2(+); PS2-3; J2-F; TB4-E
+5VDC RTN M
PS2-5,6,7; U2(-); J2-J, N; TB7-B
+5VDC NO. 3 N
PS3-3; U3(+); J2-L, M; TB5-E
+5VDC RTN P
PS3-5,6,7; U3(-); J2-P; TB8-B
SHLD GND R
E5
FROM PWR CONT J6
SPARE A
+28VDC IN B
PS1-1; PS2-1; PS3-1; PS4-1; TB1-A
OVER TEMP C
S1-1
GND D
PS2-2, PS4-2; TB2-A
GND E
PS1-2, PS3-2; TB2-B
SHLD GND F
E7

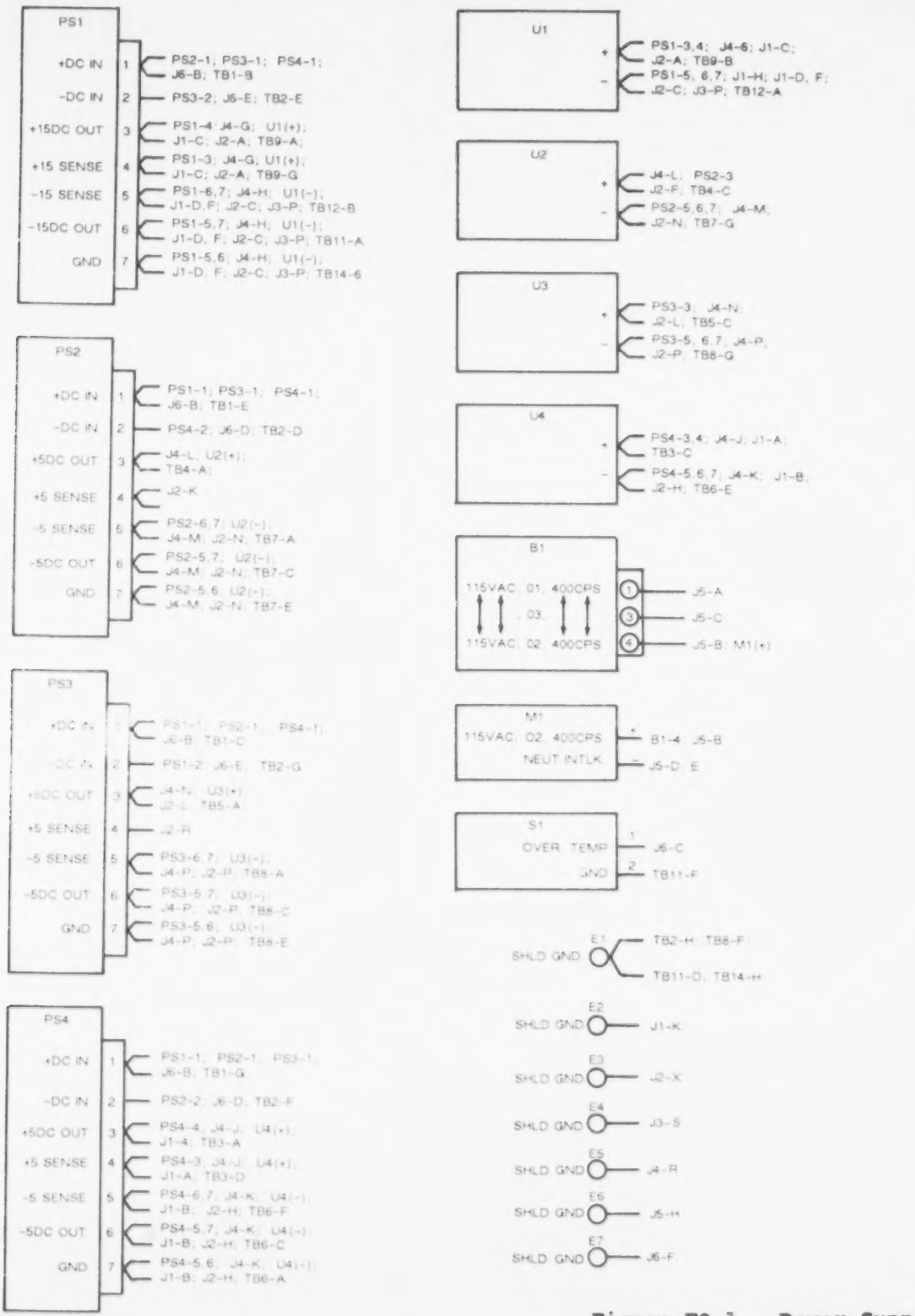
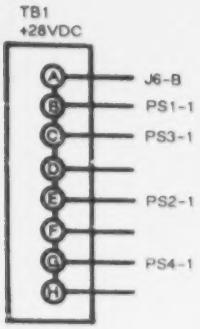
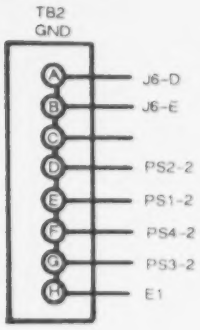
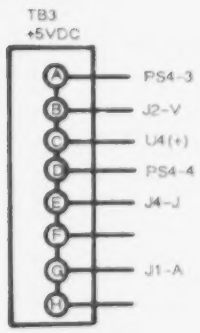
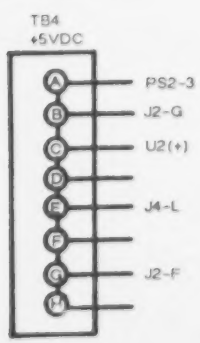

PS1
+DC IN 1 PS2-1; PS3-1; PS4-1; J6-B; TB1-B
-DC IN 2 PS3-2; J6-E; TB2-E
+15DC OUT 3 PS1-4; J4-G; U1(+); J1-C; J2-A; TB9-A;
+15 SENSE 4 PS1-3; J4-G; U1(+); J1-C; J2-A; TB9-G
-15 SENSE 5 PS1-6,7; J4-H; U1(-); J1-D,F; J2-C; J3-P; TB12-B
-15DC OUT 6 PS1-5,7; J4-H; U1(-); J1-D, F; J2-C; J3-P; TB11-A
GND 7 PS1-5,6; J4-H; U1(-); J1-D, F; J2-C; J3-P; TB14-6
PS2
+DC IN 1 PS1-1; PS3-1; PS4-1; J6-B; TB1-E
-DC IN 2 PS4-2; J6-D; TB2-D
+5DC OUT 3 J4-L; U2(+); TB4-A;
+5 SENSE 4 J2-K
-5 SENSE 5 PS2-6,7; U2(-); J4-M; J2-N; TB7-A
-5DC OUT 6 PS2-5,7; U2(-); J4-M; J2-N; TB7-C
GND 7 PS2-5,6; U2(-); J4-M; J2-N; TB7-E
PS3
+DC IN 1 PS1-1; PS2-1; PS4-1; J6-B; TB1-C
-DC IN 2 PS1-2; J6-E; TB2-G
+5DC OUT 3 J4-N; U3(+); J2-L; TB5-A
+5 SENSE 4 J2-R
-5 SENSE 5 PS3-6,7; U3(-); J4-P; J2-P; TB8-A
-5DC OUT 6 PS3-5,7; U3(-); J4-P; J2-P; TB8-C
GND 7 PS3-5,6; U3(-); J4-P; J2-P; TB8-E
PS4
+DC IN 1 PS1-1; PS2-1; PS3-1; J6-B; TB1-G
-DC IN 2 PS2-2; J6-D; TB2-F
+5DC OUT 3 PS4-4; J4-J; U4(+); J1-4; TB3-A
+5 SENSE 4 PS4-3; J4-J; U4(+); J1-A; TB3-D
-5 SENSE 5 PS4-6,7; J4-K; U4(-); J1-B; J2-H; TB6-F
-5DC OUT 6 PS4-5,7; J4-K; U4(-); J1-B; J2-H; TB6-C
GND 7 PS4-5,6; J4-K; U4(-); J1-B; J2-H; TB6-A
U1
+ PS1-3,4; J4-6; J1-C; J2-A; TB9-B
- PS1-5, 6,7; J1-H; J1-D, F; J2-C; J3-P; TB12-A
U2
+ J4-L; PS2-3 J2-F; TB4-C
- PS2-5,6,7; J4-M; J2-N; TB7-G
U3
+ PS3-3; J4-N; J2-L; TB5-C
- PS3-5, 6,7; J4-P; J2-P; TB8-G
U4
+ PS4-3,4; J4-J; J1-A; TB3-C
- PS4-5,6,7; J4-K; J1-B; J2-H; TB6-E
B1
115VAC, 01, 400CPS
, 03,
115VAC, 02, 400CPS
1 J5-A
3 J5-C
4 J5-B; M1(+)
M1
115VAC, 02, 400CPS + B1-4; J5-B
NEUT INTLK - J5-D, E
S1
OVER TEMP 1 J6-C
GND 2 TB11-F
SHLD GND E1 TB2-H; TB8-F
TB11-D; TB14-H
SHLD GND E2 J1-K
SHLD GND E3 J2-X
SHLD GND E4 J3-S
SHLD GND E5 J4-R
SHLD GND E6 J5-H
SHLD GND E7 J6-F

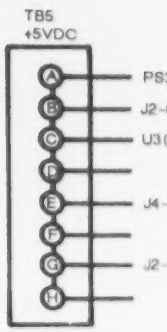
Figure FO-1. Power Supply PP-7292/USQ Wiring Diagram (Sheet 1 of 2)

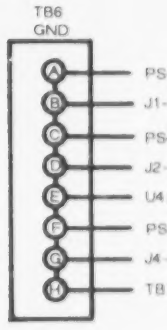

TB1
+28VDC
A
B
C
D
E
F
G
H
J6-B
PS1-1
PS3-1
PS2-1
PS4-1

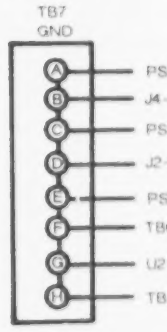

TB2
GND
A
B
C
D
E
F
G
H
J6-D
J6-E
PS2-2
PS1-2
PS4-2
PS3-2
E1

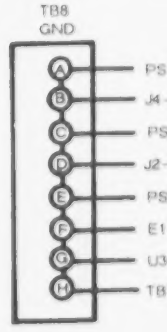

TB3
+5VDC
A
B
C
D
E
F
G
H
PS4-3
J2-V
U4(+)
PS4-4
J4-J
J1-A


TB4
+5VDC
A
B
C
D
E
F
G
H
PS2-3
J2-G
U2(+)
J4-L
J2-F


TB5
+5VDC
A
B
C
D
E
F
G
H


TB6
GND
A
B
C
D
E
F
G
H


TB7
GND
A
B
C
D
E
F
G
H


TB8
GND
A
B
C
D
E
F
G
H

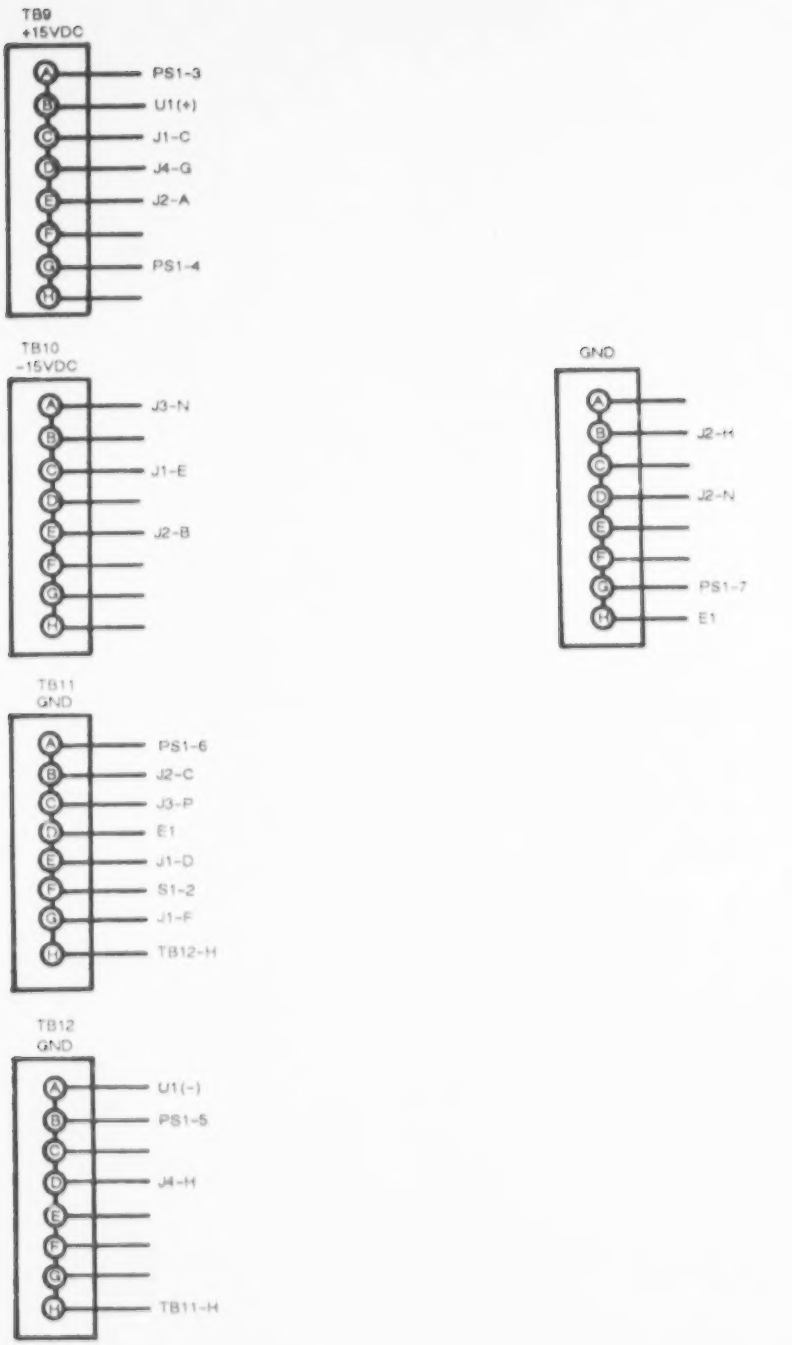
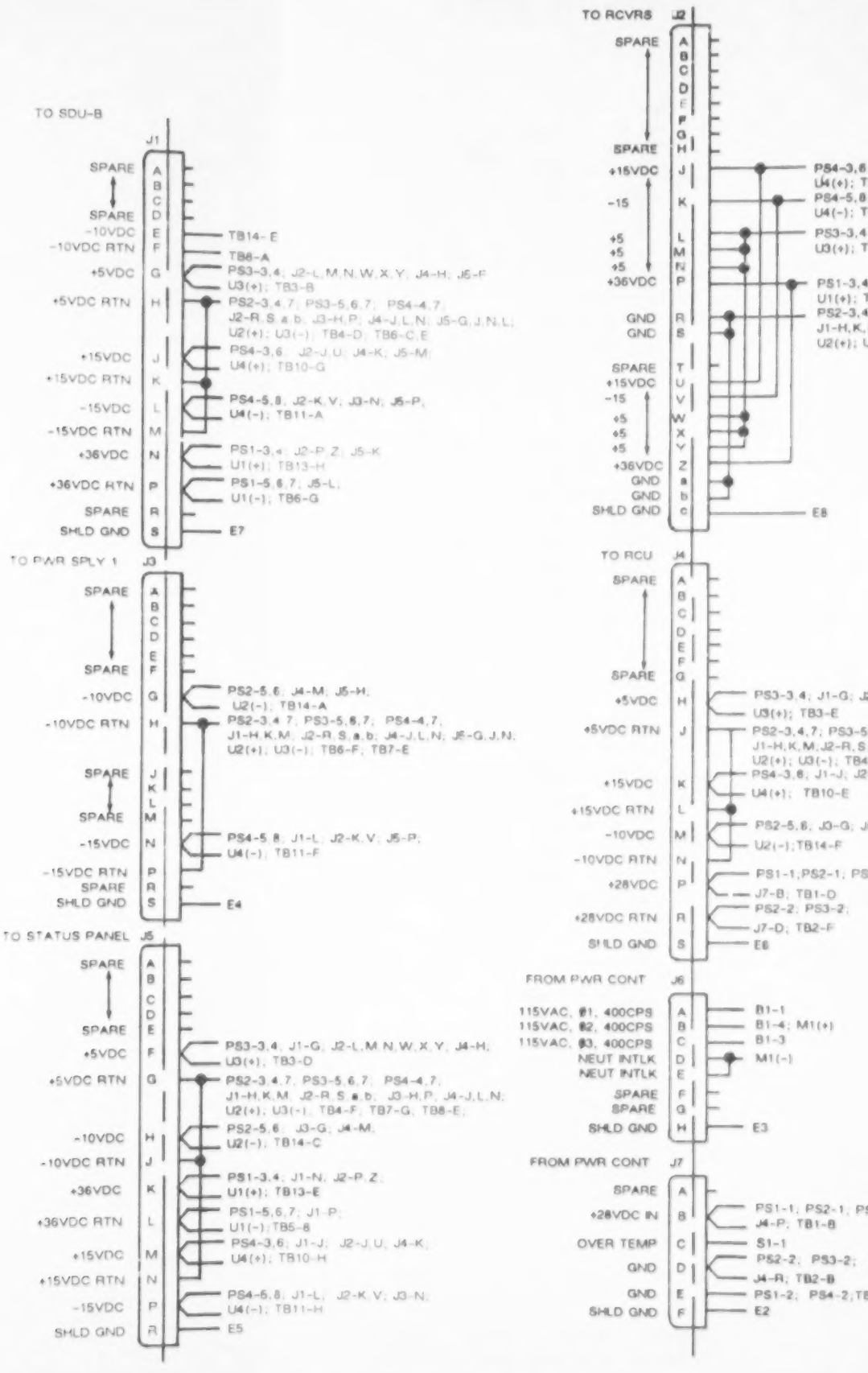


Figure FO-1. Power Suppl, PP-7292/USQ Wiring Diagram (Sheet 2 of 2)


TO SDU-B
J1
SPARE
SPARE
-10VDC
-10VDC RTN
+5VDC
+5VDC RTN
+15VDC
+15VDC RTN
-15VDC
-15VDC RTN
+36VDC
+36VDC RTN
SPARE
SHLD GND
TB14-E
TB6-A
PS3-3,4; J2-L,M,N,W,X,Y; J4-H; J5-F
U3(+); TB3-B
PS2-3,4,7; PS3-5,6,7; PS4-4,7;
J2-R,S,a,b; J3-H,P; J4-J,L,N; J5-G,J,N,L;
U2(+); U3(-); TB4-D; TB6-C,E
PS4-3,6; J2-J,U; J4-K; J5-M;
U4(+); TB10-G
PS4-5,8; J2-K,V; J3-N; J5-P;
U4(-); TB11-A
PS1-3,4; J2-P,Z; J5-K
U1(+); TB13-H
PS1-5,6,7; J5-L;
U1(-); TB6-G
E7
TO PWR SPLY 1
J3
SPARE
SPARE
-10VDC
-10VDC RTN
SPARE
SPARE
-15VDC
-15VDC RTN
SPARE
SHLD GND
PS2-5,6; J4-M; J5-H;
U2(-); TB14-A
PS2-3,4,7; PS3-5,6,7; PS4-4,7;
J1-H,K,M; J2-R,S,a,b; J4-J,L,N; J5-G,J,N;
U2(+); U3(-); TB6-F; TB7-E
PS4-5,8; J1-L; J2-K,V; J5-P;
U4(-); TB11-F
E4
TO STATUS PANEL
J5
SPARE
SPARE
+5VDC
+5VDC RTN
-10VDC
-10VDC RTN
+36VDC
+36VDC RTN
+15VDC
+15VDC RTN
-15VDC
SHLD GND
PS3-3,4; J1-G; J2-L,M,N,W,X,Y; J4-H;
U3(+); TB3-D
PS2-3,4,7; PS3-5,6,7; PS4-4,7;
J1-H,K,M; J2-R,S,a,b; J3-H,P; J4-J,L,N;
U2(+); U3(-); TB4-F; TB7-G; TB8-E;
PS2-5,6; J3-G; J4-M;
U2(-); TB14-C
PS1-3,4; J1-N; J2-P,Z;
U1(+); TB13-E
PS1-5,6,7; J1-P;
U1(-); TB5-6
PS4-3,6; J1-J; J2-J,U; J4-K;
U4(+); TB10-H
PS4-5,8; J1-L; J2-K,V; J3-N;
U4(-); TB11-H
E5
TO RCVRS
J2
SPARE
SPARE
+15VDC
-15
+5
+5
+5
+36VDC
GND
GND
SPARE
+15VDC
-15
+5
+5
+5
+36VDC
GND
GND
SHLD GND
PS4-3,6
U4(+); T
PS4-5,8
U4(-); T
PS3-3,4
U3(+); T
PS1-3,4
U1(+); T
PS2-3,4
J1-H,K,
U2(+); U
E8
TO RCU
J4
SPARE
SPARE
+5VDC
+5VDC RTN
+15VDC
+15VDC RTN
-10VDC
-10VDC RTN
+28VDC
+28VDC RTN
SHLD GND
PS3-3,4; J1-G; J
U3(+); TB3-E
PS2-3,4,7; PS3-5
J1-H,K,M; J2-R,S
U2(+); U3(-); TB4
PS4-3,6; J1-J; J2
U4(+); TB10-E
PS2-5,6; J3-G; J
U2(-); TB14-F
PS1-1,PS2-1; PS
J7-B; TB1-D
PS2-2; PS3-2;
J7-D; TB2-F
E6
FROM PWR CONT
J6
115VAC, Ø1, 400CPS
115VAC, Ø2, 400CPS
115VAC, Ø3, 400CPS
NEUT INTLK
NEUT INTLK
SPARE
SPARE
SHLD GND
B1-1
B1-4; M1(+)
B1-3
M1(-)
E3
FROM PWR CONT
J7
SPARE
+28VDC IN
OVER TEMP
GND
GND
SHLD GND
PS1-1; PS2-1; PS
J4-P; TB1-B
S1-1
PS2-2; PS3-2;
J4-R; TB2-B
PS1-2; PS4-2;TB
E2

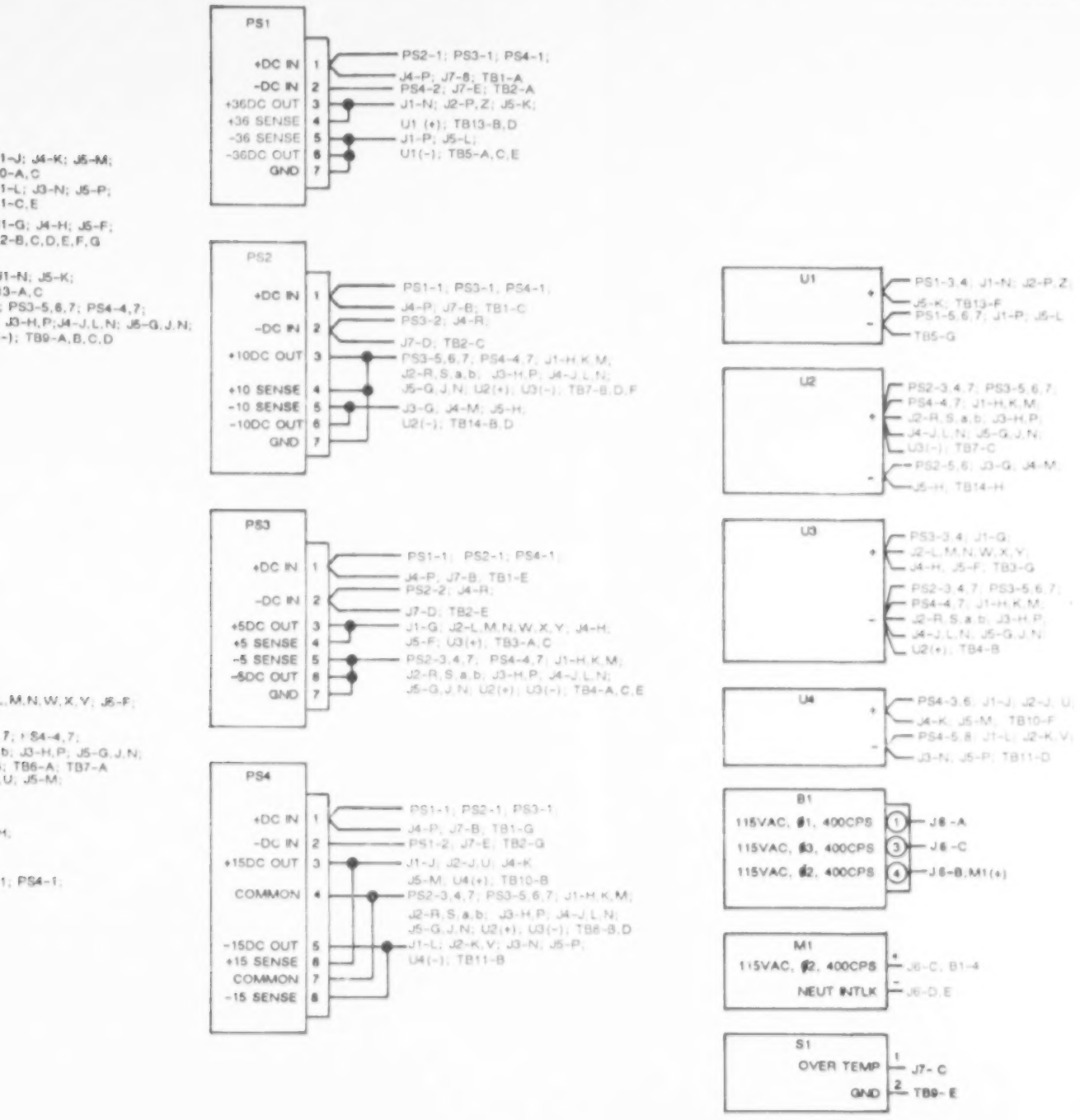
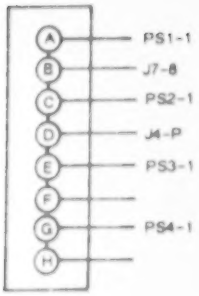
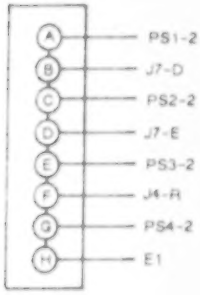


Figure FO-2. Power Supply PP-7293/USQ Wiring Diagram (Sheet 1 of 2)

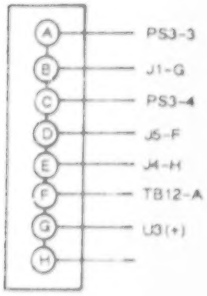
TB1
+28VDC



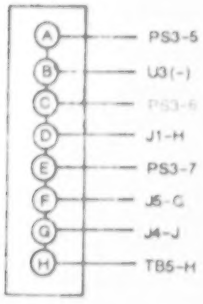
TB2
GND



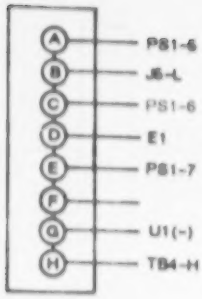
TB3
+5VDC



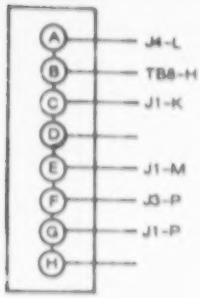
TB4
GND



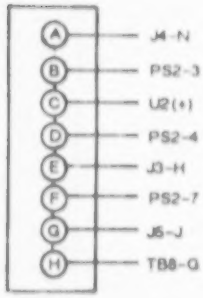
TB5
GND



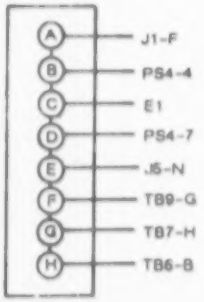
TB6
GND



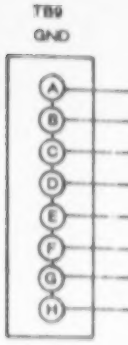
TB7
GND



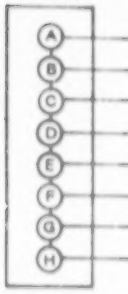
TB8
GND



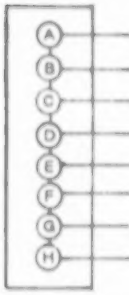
TB9
GND



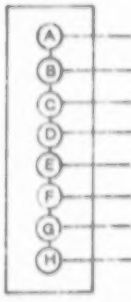
TB10
+15VDC



TB11
-15VDC



TB12
GND



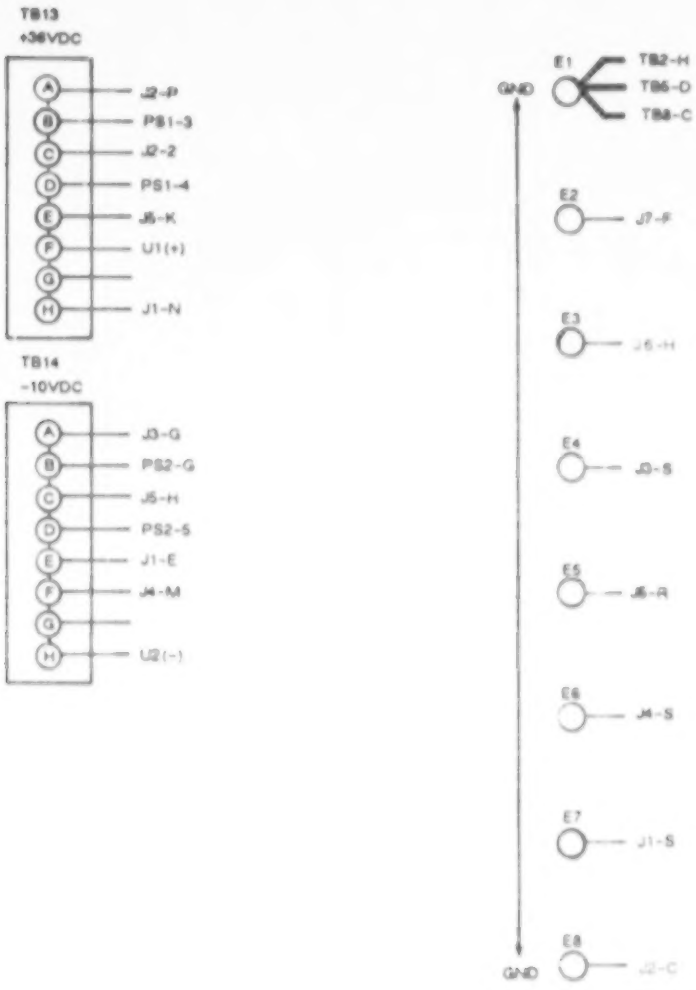


Figure FO-2. Power Supply PP-7293/USQ Wiring Diagram (Sheet 2 of 2)

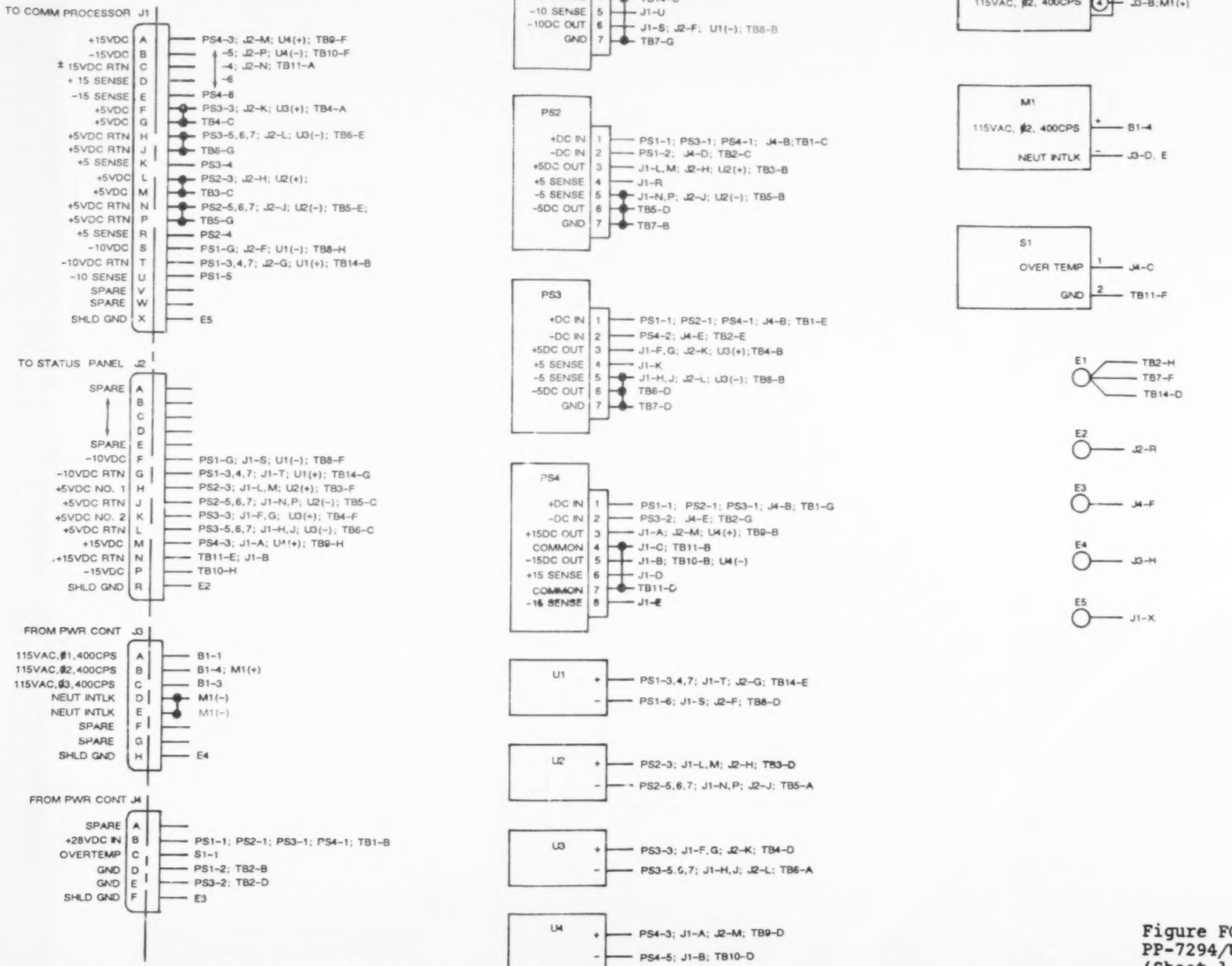

TO COMM PROCESSOR J1
+15VDC A — PS4-3; J2-M; U4(+); TB9-F
-15VDC B — -5; J2-P; U4(-); TB10-F
± 15VDC RTN C — -4; J2-N; TB11-A
+ 15 SENSE D — -6
-15 SENSE E — PS4-6
+5VDC F — PS3-3; J2-K; U3(+); TB4-A
+5VDC G — TB4-C
+5VDC RTN H — PS3-5,6,7; J2-L; U3(-); TB6-E
+5VDC RTN J — TB6-G
+5 SENSE K — PS3-4
+5VDC L — PS2-3; J2-H; U2(+);
+5VDC M — TB3-C
+5VDC RTN N — PS2-5,6,7; J2-J; U2(-); TB5-E;
+5VDC RTN P — TB5-G
+5 SENSE R — PS2-4
-10VDC S — PS1-G; J2-F; U1(-); TB8-H
-10VDC RTN T — PS1-3,4,7; J2-G; U1(+); TB14-B
-10 SENSE U — PS1-5
SPARE V
SPARE W
SHLD GND X — E5
TO STATUS PANEL J2
SPARE A
B
C
D
SPARE E
-10VDC F — PS1-G; J1-S; U1(-); TB8-F
-10VDC RTN G — PS1-3,4,7; J1-T; U1(+); TB14-G
+5VDC NO. 1 H — PS2-3; J1-L,M; U2(+); TB3-F
+5VDC RTN J — PS2-5,6,7; J1-N,P; U2(-); TB5-C
+5VDC NO. 2 K — PS3-3; J1-F,G; U3(+); TB4-F
+5VDC RTN L — PS3-5,6,7; J1-H,J; U3(-); TB6-C
+15VDC M — PS4-3; J1-A; U4(+); TB9-H
+15VDC RTN N — TB11-E; J1-B
-15VDC P — TB10-H
SHLD GND R — E2
FROM PWR CONT J3
115VAC,ϕ1,400CPS A — B1-1
115VAC,ϕ2,400CPS B — B1-4; M1(+)
115VAC,ϕ3,400CPS C — B1-3
NEUT INTLK D — M1(-)
NEUT INTLK E — M1(-)
SPARE F
SPARE G
SHLD GND H — E4
FROM PWR CONT J4
SPARE A
+28VDC IN B — PS1-1; PS2-1; PS3-1; PS4-1; TB1-B
OVERTEMP C — S1-1
GND D — PS1-2; TB2-B
GND E — PS3-2; TB2-D
SHLD GND F — E3
PS1
+DC IN 1 — PS2-1; PS3-1; PS4-1; J4-B; TB1-A
-DC IN 2 — PS2-2; J4-D; TB2-A
+10DC OUT 3 — J1-T; J2-G; U1(+); TB14-A
+10 SENSE 4 — TB14-C
-10 SENSE 5 — J1-U
-10DC OUT 6 — J1-S; J2-F; U1(-); TB8-B
GND 7 — TB7-G
PS2
+DC IN 1 — PS1-1; PS3-1; PS4-1; J4-B;TB1-C
-DC IN 2 — PS1-2; J4-D; TB2-C
+5DC OUT 3 — J1-L,M; J2-H; U2(+); TB3-B
+5 SENSE 4 — J1-R
-5 SENSE 5 — J1-N,P; J2-J; U2(-); TB5-B
-5DC OUT 6 — TB5-D
GND 7 — TB7-B
PS3
+DC IN 1 — PS1-1; PS2-1; PS4-1; J4-B; TB1-E
-DC IN 2 — PS4-2; J4-E; TB2-E
+5DC OUT 3 — J1-F,G; J2-K; U3(+);TB4-B
+5 SENSE 4 — J1-K
-5 SENSE 5 — J1-H,J; J2-L; U3(-); TB6-B
-5DC OUT 6 — TB6-D
GND 7 — TB7-D
PS4
+DC IN 1 — PS1-1; PS2-1; PS3-1; J4-B; TB1-G
-DC IN 2 — PS3-2; J4-E; TB2-G
+15DC OUT 3 — J1-A; J2-M; U4(+); TB9-B
COMMON 4 — J1-C; TB11-B
-15DC OUT 5 — J1-B; TB10-B; U4(-)
+15 SENSE 6 — J1-D
COMMON 7 — TB11-D
-15 SENSE 8 — J1-E
U1 + — PS1-3,4,7; J1-T; J2-G; TB14-E
- — PS1-6; J1-S; J2-F; TB8-D
U2 + — PS2-3; J1-L,M; J2-H; TB3-D
- — PS2-5,6,7; J1-N,P; J2-J; TB5-A
U3 + — PS3-3; J1-F,G; J2-K; TB4-D
- — PS3-5,6,7; J1-H,J; J2-L; TB6-A
U4 + — PS4-3; J1-A; J2-M; TB9-D
- — PS4-5; J1-B; TB10-D
B1
115VAC, ϕ1, 400CPS 1 — J3-A
115VAC, ϕ3, 400CPS 3 — J3-C
115VAC, ϕ2, 400CPS 4 — J3-B;M1(+)
M1
115VAC, ϕ2, 400CPS + — B1-4
NEUT INTLK - — J3-D, E
S1
OVER TEMP 1 — J4-C
GND 2 — TB11-F
E1 — TB2-H; TB7-F; TB14-D
E2 — J2-R
E3 — J4-F
E4 — J3-H
E5 — J1-X

Figure FO-3. Power Supply PP-7294/USQ Wiring Diagram (Sheet 1 of 2)

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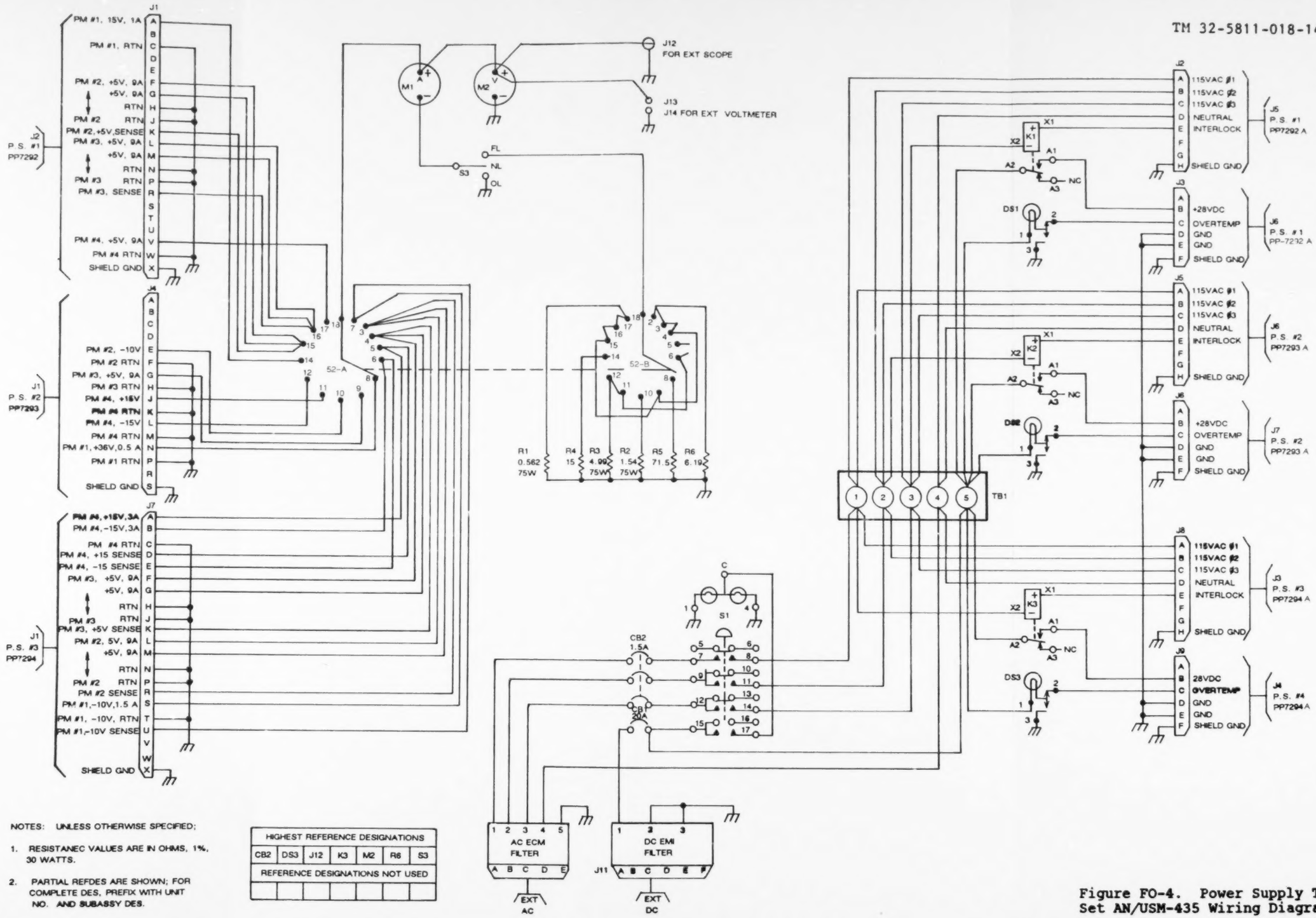
Figure FO-3. Power Supply PP-7294/USQ Wiring Diagram (Sheet 2 of 2)



NOTES: UNLESS OTHERWISE SPECIFIED;

1. RESISTANEC VALUES ARE IN OHMS, 1%, 30 WATTS.
2. PARTIAL REFDES ARE SHOWN; FOR COMPLETE DES, PREFIX WITH UNIT NO. AND SUBASSY DES.

HIGHEST REFERENCE DESIGNATIONS						
CB2	DS3	J12	K3	M2	R6	S3
REFERENCE DESIGNATIONS NOT USED						

Figure FO-4. Power Supply Test Set AN/USM-435 Wiring Diagram

PIN: 044625-000